

Mu's Unbelievably Long
and Disjointed Ramblings
About RPG Design

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1 Foreword

IMPORTANT NOTE TO THE SEMI-LITERATE: Please note the word "Design" above.

These pages contain a whole bunch of stuff about my personal philosophies on game design, and the state of game design. It leans heavily towards making a fantasy pre-industrial age MMORPG that is realistic, believable, balanced, and immersive. Some of these ideas and suggestions are applicable to all types of game design in any genre, from pen and paper to the MMORPG model. Some of them are specifically geared for computer-based systems. Some of them require server and wide area networking technology that is about 3 generations away. That's okay though, it just means this document may still be valid by that time, if the computer game industry hasn't been sucked into a quagmire of bureaucratic crap and cheap sequel stamping by then. Oops, too late.

These pieces are not presented perfectly, and many times the topical relationship between an article and the page it appears on is marginal. Some pieces look like they belong on two or more pages, so I just left them in the most appropriate section. These articles will be continually updated as I feel like it. The staggering volume of text and constant updating is very convenient for me, as whenever someone challenges a theory or factoid presented here, I can easily say, "Oh, that's taken care of in some other section," then hastily write a piece that explains the discrepancy and update before the critic can navigate his way through the mass of material.

Some of these pieces were written by Randall G. Sherman (Shadwolf). Important editorial contributions and suggestions were made by lots and lots of people, including (but not exclusively) Randall Sherman, Tony Faber, Derek Collazzo, George Harvey, Jesse Kurlancheek, Penelope Baker, Wendy Montgomery, Kristin Bates, Stephen Bulla, Jeff Sandler, J., Allerion, Wi, Iron Monkey, Mourné, Airety, and the power proofreading team of Tasha, Lucy, Abby and Taco-Girl.

There are a number of other excellent pieces about roleplaying game/world design and implementation available on the web. I don't like all of them, but they're always interesting. Here are a few:

2 General Topics

2.1 Holistic Game Design

One thing that keeps popping up throughout this long and rambling document is the idea that "This thing doesn't work unless these other things also work." This interrelationship of elements in a system can be considered "holistic," and is a good thing to keep in mind when designing, tweaking, or patching your system. Everything affects everything else.

Somehow, established professionals in the game development field forget this idea all the time, or perhaps never considered it. As a direct result of thinking about game design in a non-holistic way, elements are introduced into the game for seemingly decent purposes and wind up destroying whole areas they were never meant to impact. However, because designers of all types tend to be stubborn, proud people, these mistakes are often left there to fester, and the game is never quite as good as it was before.

This, by the way, is one of the reasons this document is so long and sprawling. Whenever I think of an idea to tack onto it, there are three or four corollaries to that idea that cry out for explanation, and therefore these need to be added as well. For instance, a PvP+ environment with no switch can be an excellent element of a game world, but it has direct impact on almost everything else. It requires careful weapon balance, character potential limits, class balance, a robust justice system, legally sanctioned benefits for non-criminals, etc. etc. Introducing an element that is unbalanced from the PvE standpoint (i.e. the sword that does 9000 damage so players can easily kill a boss monster) demolishes PvP and must be disallowed before it ever gets into the game.

It's easier to show how ignoring holistic philosophy ruins games than trying to provide examples of good holistic design, since (a) holistic design is far too uncommon in the industry, and (b) if a game is largely holistic and balanced, but there are a few stupid ideas thrown in, they eclipse everything else. Therefore, here are some theoretical examples of how ignoring the holistic approach can destroy other elements of the game:

Implementation	Reason	What It Ruins
Sword/crossbow/spell of mass destruction	It seemed like a good carrot for high level players	Every other method of attack, and all content below the level of content the superattack is geared for. Also wrecks PvP.
Hooded faran robe (AC)	They look cool	Because the team forgot that players could cast overpowered protective spells on garments, robes become the #1 choice for armor. This ruins almost all other armor, any class that is unable to cast these spells, and any content geared towards players wearing standard armor.
Monsters with really good loot	Player base whining	All other monsters besides uberloot monsters, the item economy, the cash economy, and any character type not specifically outfitted to deal with uberloot monsters.
Easy XP farming areas	Player base whining, or a desire to power players up to meet unbalanced content	All content below the highest level, all quests below superquests, all characters not optimized for powerleveling, etc.

On the other hand, here are some of the considerations presented within this document and the other game elements required to make sure they work (assume that "robust server and code" is included for all elements, of course):

Implementation	Additional Required Systems
Off-hours (logged off) activity system	Strong timekeeping, learning by doing skill system.
Historically accurate weapon system	Modifiers for weapon reach, reasonable player power range, good pre-implementation research.
PvP+ environment	Player power limitations, zero sum balanced combat system for all possible attack forms, working justice system, reasonable sanctions against criminal lifestyles, reasonable death system, etc.
Reasonable cash economy	Taxation system, reasonable rewards for all moneymaking activities, sufficient cash drains that are either unavoidable or else worth the players' while to use
Player character nobility and rule	Monarch menu, robust NPC engine for dealing with the movements of peasants, etc., reasonable economies, large scale combat engine including NPC's for territorial incursions and defenses, dynamic construction engine, diplomacy engine, robust justice system, taxation, siege, supply considerations, etc.
Trade skills	Every other aspect of a balanced economic system, all aspects of combat that relate to crafted combat goods, use-based skill gain system
Non-static human and monster populations	Dynamic construction engine, off-hours activity engine, ability to hire NPC's of many types, logical migration algorithm, frontier for new monsters to come from

Naturally, every element that is tied to a particular implementation has its own ties to other elements that make it work, ad infinitum. This seems daunting at first, but after a long time considering these things, one's brain can start to make the connections and references automatically, and with a little effort, all elements of the game become tied together in a complex web of relationships which are more easily navigated. Congratulations: you are now designing holistically.

2.2 The Grandfather Clause of Stupidity

Probably the biggest single source of bad rule and mechanics decisions comes from the fact that most game designers, rather than actually going to a library, base most of their research on the work of other game designers. In this way errors are compounded, unrealistic ideas are perpetuated, and design flaws from the earliest of games become commonplace in all modern iterations. It all goes back to the origin of the "role playing game." Here we are talking about the true origin of the "let's pretend" game like House or Cops and Robbers, but of the origin of the systemized, rule-based role playing simulation. It all starts with Chainmail.

Chainmail was a short, cheaply published book by Gary Gygax and Dave Perren, originally published by Guidon Games, copyright 1971 (Gygax claimed 1969, but the copyright information contradicts this). It was a set of rules for tabletop miniatures battles using lead figures and dice, and contrary to popular geek-convention myth, there was indeed a 12 page fantasy rules supplement present (in addition to the now-standard concept of "hit points"). By 1974-1975 it was being published by Lake Geneva Tactical Studies Rules (TSR). About this time, the first version of Dungeons and Dragons came out as sort of an add-on to Chainmail, three little brown books that focused on the playing of individual figurine-characters as opposed to conducting large scale tactical combat. The combat tables determining hits, misses, and damage were very similar to those in Chainmail. *This is where all the trouble begins.*

The modern idea of the systemized RPG, from pen and paper to MMORPG, all stems from this Chainmail legacy, and several silly factors have never been properly weeded out. The two biggies are:

The focus on combat as the core activity in games that are purportedly about assuming a role, as opposed to a tabletop miniatures battle system

Arbitrary and unrealistic characteristics ascribed to weapons and armor, very convenient for calculating casualties in mass combat quickly yet wholly inappropriate for small-scale tactical simulations

It is difficult to underestimate the ability of people to consider themselves an authority on things when their only source of information is a *game manual* someone else wrote before them, which was in turn based on another game manual, etc. etc. Things become worse when these designer-types elect to "make a few little adjustments" in the thirdhand systems they're stealing from.

Example: In Advanced Dungeons and Dragons, 1st Edition, there is a huge hairball of a combat chart that nobody used, called the "Weapon vs. Armor Class Type" table. This one table helps to make sense of the arbitrary D&D weapon damage system of, "duh, a dagger is pretty small so it does 1d4, a bastard sword is a little bigger than a long sword so it does 2d4 instead of 1d8...". The table assigns various bonuses or penalties to hit with any given weapon vs. an armor *type*, i.e. a weapon may have terrible chances against full plate and shield, but be better at penetrating chain. The table was flawed (it treated chain and shield the same as it would treat splint, as they were both base AC 4, etc.), but it lent some purpose to a weapon one might not otherwise consider useful. It was also *very complicated* to use for the typical beer and pretzels gamer, and so nobody ever used it. In the misbegotten later editions of AD&D, this table was simply removed altogether, and players were back to the old choices of longsword, longbow, and two-handed sword.

The advent of the computer as a referee, or even a referee's assistant, presents entirely new possibilities to get away from these godawful abstractions and arbitrary damage values. A computer is perfectly happy to calculate whether or not the sun is shining at a bad angle into an archer's eyes, or the effects of windage on a sniper's shot. As better, more powerful machines become available and come down in price, the potential of the MMORPG server to do complex battle calculations increases. The basic ones aren't even that complex. Is the guy being stabbed by the stiletto wearing maille? Then the stiletto has more effect! Is a spear longer than a club? Advantage spear! Simple considerations like these can add a whole new level of subtle realism to the game, and with it, a whole new importance to *strategy* in combat, as opposed to how high one's numbers are. If game software engineers would stop thinking in terms of an expensive version of 3 little brown books published in 1974 and more in terms of computer-simulated battle conditions, I would be ecstatic.

2.3 Paths Unlimited

One of the things that separates a really well-designed role playing game from a hack and slash through a single corridor is the concept of choice. Players need to be able to have choices, and those choices have to matter. A player should be able to pick and choose a course of action for his character from as wide a variety of possibilities as is feasible, and while some of these choices will be obviously stupid ones, there should not be only one option for becoming "heroic." Unfortunately, the nature of modern CRPG design seems to mandate that players kill stuff and rob it, due to the relative ease of focussing on combat only as a path of advancement, as well as the "monsteritis" syndrome that relegates all non-player characters to the role of "thing that sits around waiting for players to attack it."

The most elementary system for expanding the number of options open to a player is meaningful craft skills. This means artisan trades that players can explore that exist for some reason besides equipping "real" characters who go out to kill stuff. In a world where food is required by PC's and

NPC's alike, agronomy and foraging could be important skills, as could hunting game. Indeed, a nomadic character who stays away from town would need these abilities, even if he supplements his rations by murdering other players for their salt pork and waybread. If food is not required, other skills would certainly be valuable, like leatherworking, ore refining, smithy, woodwork, bowery... the classics, as it were. If the engine is sophisticated enough to track the construction of new buildings over time, carpentry and architecture take on new possibilities. Cartography, dowsing, herbalism, medicine, tinsmithy... trade skills can number in the hundreds easily, limited only by the complexities of code and the ability of developers to think outside of the norm when considering trade skills.

Some of the most rewarding aspects of playing an RPG for some players lies in the less quantifiable pursuits like diplomacy, the acquisition of a title, political influence, and inter-community trade. These are more difficult to simulate in a system relying on hard code, as by and large these are subjective skills, not measurable in terms of points. However, one can always start somewhere. The acquisition of titles like "Grand Master of the Four Flowers School of Swordsmanship" can be done through quests, say to prove one's worth in a contest of skill at the school, assuming one has spent enough time there to qualify for the test in the first place. This sort of contest is nice, because it doesn't confer anything but a title and bragging rights, but only one person (presumably) can be Grand Master of any one school. This provides an avenue of competition amongst players that doesn't involve PvP, which is nice for those not inclined toward human conflict. Acquiring the title of Ambassador may require several successful missions to neighboring city-states (although the heuristics determining a successful negotiation would be rough indeed), and may confer on that player some extra status in his hometown that could translate into legal flexibility, or even better prices at the market. To gain more standing in the Merchant's Guild might require successful caravans full of needed supplies to dangerous zones, and might confer similar price benefits and a certain amount of credit, plus economic flexibility between regions if your monetary system is realistically diversified. A Master of Lore, accredited by the not-so-local Wizarding College, would have demonstrated a high degree of aptitude in several areas of arcane knowledge, and would maybe gain access to some interesting (though not utterly powerful) incantations, probably of an informational nature, and better availability of ingredients, plus access to restricted tomes and such.

Even the overused motive of "kill stuff" can take on new meaning if the system is flexible enough to support it. If your goal is (using an Asheron's Call cliché for example) to drive the Tumeroks out of Dryreach, wouldn't it be interesting if it could actually be done? You'd think after losing about 18 million troops to marauding humans, they would have given up on the idea of holding the town and move somewhere else. The town is freed, the conquering players are hailed and honored, and now there's something else to do as the evicted monsters make other plans, or call for backup. If the engine allows for the dynamic construction of buildings over time, a player could discover a group of enemies secretly building a fort in the woods. Maybe the players can band together to ruin their plans. If they don't, then attacks on the locals will be launched out of the fortified base, forcing players to either do something about the situation or lose the town. Adding meaning to combat-related goals requires the same thing that noncombat goals require: imagination to conceive a new way for things to be done, robust code to implement the ideas, and sufficient technology to support the execution of these ideas without too much strain on the server or the client's bandwidth.

2.4 Design from Tech or Tech from Design

A point addressed many times throughout this treatise is the effect of the codebase and its limitations on what content and systems you are able to implement in a computer based RPG. A designer may have a cool idea, but when he props it, the code team says, "Never happen," "Requires new tech," "Not possible given our development cycle," etc. These are valid arguments, and some pie in the sky features will never make it into a particular game system because of them. However, eventually the designer gets sick of hearing these things, and so begins to only propose things he *knows* have a good shot being implemented given the restrictions of the code. As a result, all of the new content winds up looking pretty much the same, with no innovative characteristics.

There is an analogy to this situation that I have personally bitched about for years, in the field of musical composition. At its purest level, the act of musical composition (the design phase) is done purely in one's head, and the subsequent translation to paper and copy is only a method of communicating the mental sound-picture to players who can then execute it. As the composer gets more tools (tech), he can easily slip into the trap of basing all of his ideas on what his tools can do. One current example of this attitude in the music industry is the use of sequencers as a composition tool. An over-reliance on the sequencer (tech) to determine what you can compose (design) results in very similar, boring music, since you tend to avoid things that are difficult to express using the sequencer (tech limitations).

It stands to reason, therefore, that it's possible to conceive more interesting and innovative systems if you *don't* consider the practical limitations of technology during the initial design phase. However, because tech limitations are a reality, not all of the cool ideas you come up with on the design side are going to make it into a product that has a reasonable development cycle. Pushing this issue causes problems in the form of contempt between the design and tech teams as follows:

Design: "I want to implement this feature, it's really cool."

Tech: "This will never happen if you want this game to ship in this decade."

Design: "But I NEEDED this! Do it!"

Tech: "Screw you buddy."

This problem becomes even more pronounced in a persistent world system post-release. A suggested feature from design that's supposed to be patched into the existing code is even *more* subject to the limitations of technology, especially if that technology was released over a year ago. Rewriting your entire engine because you want to implement something new is very risky and financially not feasible.

Tech gains contempt for design because design is obstinate and unrealistic. Design gains contempt for tech because tech is viewed as lazy. In fact, either or both of these could be true. These problems have to do with personnel decisions and human resources, and are outside the scope of this document. Basically, though, having a tech and design team who are compatible and have a similar vision of making a really cool game is a good thing in some cases. Like, if you want to make a really cool game.

2.5 Roleplaying = Fighting

This relationship and its origins were alluded to in the "Grandfather Clause of Stupidity" section. When one looks at the gamut of roleplaying games, from the first iterations of D&D through modern server-based MMORPG's, they *all* seem to be about one thing: fighting. The original cause for this is that all modern RPG's were spawned out of tabletop miniatures battle rules, but the trend is perpetuated by some other, equally noisome, factors. First and most importantly, there are the human factors:

Players are generally dull unoriginal people who prefer to pretend to kill shit than think about plot development

Referees are generally dull unoriginal people who prefer to run adventures about killing shit than work on plot development

Nothing can be done to help these people. Their best option is to either find a system with a combat system which is actually good (Street Fighter STG), resort to actual battlefield simulation games, or load up a computer game about fighting people and go to it. Eventually they will give up on RPG's

and turn instead to Playstation or WWF to relieve this need for constant carnage. However, a fair chunk of this populace insists on considering themselves "RPG fanatics," thereby increasing the market value of RPG's and MMORPG's that are all about fighting, thus lowering the value of these games to the gamer who is actually interested in character development and plot.

However, let's consider some other factors, equally important, that mandate combat effectiveness as the primary concern for a character in an RPG, paper *or* computer based.

Combat is Dangerous. It may be all well and good to play the bookworm research mage, the pacifistic wandering healer, or the law student with a knack for solving mysteries, but if the game setting is typical of the RPG genre, at some point a fight *will* break out. The first time this happens, depth-oriented noncombat characters like this will be killed, thus hindering their chances of further development. Meanwhile, the guy who put all his points into Guns skill or the barbarian with 18/00 strength will merrily slice and dice through the enemy, and live to see another day and another load of experience. Even in cases where death is not final, like in overly-generous paper campaigns or in any MMORPG, it's still inconvenient, frustrating, and probably carries some kind of penalty. Players of nonfighting characters are railroaded into rerolling combat monsters just as effectively as if their character had been killed forever, along with any intent they ever had about roleplaying that sort of character.

Designers are Unimaginative. This is about the same as the human factor given above, but here it deals with something more insidious than the GM/referee/developer's inclination to steer toward combat in the first place. Here, the referee knows that he should do *something* to make skills besides "Hit Things" and "Don't Get Hit By Things" some utility... he's just very bad at implementation. In a pen and paper game, this means that the poor guy who dumped half his creation points into stuff like Investigation, Computer Op, and Lore is *screwed* by the utter lack of anything to do in every adventure. In a computer-based game, it means the players who opted for low physical characteristics and concentrations on things like Gambling and Cooking are relegated to the position of mules, unable to advance in a level-based system or forced into hours of mindless repetitive clicking in a skill-based system, all for the chance of maybe *one day* being able to perform *one task* that was patched in for them out of pity 6 months after final.

Abstract Values Don't Roll Well. Noncombat skills people tend to make use of in an RPG setting are typically skills like Investigation, Disguise, Alchemy, etc. These are rather simplistic terms for very complex and hard-to-quantify activities that have a lot of other abstract factors influencing the "chance of success." Pen and paper rules for the use of these skills are usually extremely long, describing ways to reduce these outside influences to a die roll modifier, and when all else fails, the GM assigns arbitrary modifiers based on how the player describes his activities. Obviously this doesn't work *at all* in any sort of computer-refereed setting. On the other hand, combat is relatively simple. You roll to hit, you roll damage. Any factors that modify this roll like range, target size, attacker position, etc., are easy to define, and factoring them in becomes less of a judgment call and more a matter of how complex your attack algorithm is.

How to deal with these problems? In a pen and paper RPG, it seems easy enough, although the incompetence of the prototypical GM will still get in the way. In these cases, it is fully up to the GM to make sure that noncombat skills and abilities matter in a way that contributes to the survival and advancement of the player character. This requires careful balancing, and the GM must be careful to keep things within the system of his choice. Of particular note is the player who "fakes it" (I am personally notorious for this). This is when a player character, through acting and roleplay, manages to do things that his *character* would be incapable of, like fast-talking the guard into looking the other way, securing a trade agreement, or forcing the information he needs out of a suspect... without buying the appropriate skills. The GM can allow abstract die roll modifiers for histrionics like this, but if the character in question still has a Diplomacy skill of 5 (on a 3-18 scale), good freaking luck.

In a computer-based single-player or single-run RPG like Baldur's Gate II, it becomes almost impossible to make noncombat skills and character types really matter except through the most

contrived scenarios. Need a purpose for your thief? Well, every dungeon has zillions of traps only a thief can deal with. Want to be the nice guy smooth talker? Just pick the appropriate responses from the multiple-choice conversation dropdowns. In almost all cases, it *still* comes down to how well you can kill the other guy, but there's a tiny glimmer of hope. Maybe by the next generation of single run computer RPG's, advanced technology will be coupled with the unlikely possibility of advanced storywriters and these games will be more than this. (I'm not holding my breath though.)

In the current state MMORPG, there isn't even the faintest glimmer of hope. Of the big three, the one that provides the strongest case for the noncombat character is Ultima Online, where trade skills actually matter and there may in fact be a purpose in life for your blacksmith. This only seems fantastic when compared to the other two MMORPG models for tradeskills: Asheron's Call, where trade skills are something you raise on an allegiance mule to help your real character kill more stuff, and Everquest, where trade skills are basically a waste of time and ultimately even more boring than the monster camping that comprises 99% of the "action." Even in UO, your master of mercantile pursuits is still dead when he missteps out of the guard zone and gets jumped by a few murderers who then loot his house. You cannot conduct diplomacy with a computer-controlled NPC in these games... hell, you can barely have an intelligible conversation with another player. The closest you can ver get to performing a mission like spy or a thief, obtaining the objective without combat, is by exploiting bugs or by jumping someone else's quest, or possibly muledrop thievery and player scamming. If a system like UO *does* allow for thievery, eventually so many people complain that thieves get bizarre and arbitrary limitations slapped on them, effectively ruining the class. MMORPG's have not yet been able to deal with the provision of a meaningful existence for the non-killer, and so they actively steer content toward the killer, encouraging more combat optimization, more powerful attack potentials, and less variety.

It seems bleak, and it is. This is one of the reasons that jaded players of MMORPG's and CRPG's have gone back into the roulette game of pen and paper, hoping against hope to find a GM and/or players who do not suck. As a general rule, though, most people *do* suck, and are incapable of telling an RPG from a glorified shooter, which is what many so-called RPG's actually represent. It is my fervent hope that the RPG, particularly the MMORPG, will rise above the level of "bad Doom with character levels" and manage to present an immersive and compelling storyline that draws players in, rather than continuing on their current slide.

2.6 Limiting Player Power

It seems inevitable: even if any game system starts out as being playable, logical, balanced, and *fun*, it gets destroyed in time, usually through the addition of badly thought out supplementary material, either supplementary rulebooks, patches, or expansion packs. It's true that such supplementary material can be beneficial to any game system, not to mention the prospect of continuing revenue from one's player base, but inevitably a horrible thing happens. *Everything gets bigger.*

It happens all the time in pen and paper systems. The saving grace of a paper system is that as the referee controls the game (hopefully), he has the option to change and ignore bad rules whenever they inevitably appear. Examples:

AD&D 1st edition was a nice little game, completely arbitrary, yet it worked. There were a couple of little problems with it (look, elves speak 18 million languages, get combat bonuses, infravision, sword and bow bonuses, and live forever), but it still worked. Why? A group of AD&D players, using the rules well and accurately, might possibly get to an all-time high level of 15 or so if they were very lucky. Most of their adventuring was done around the 5-7 range. Then came supplements with overpowered classes (Cavalier/Barbarian in particular), Deities & Demigods with rules for how to turn your character into a divine being, and eventually the 2nd edition, where the power level was raised for everyone. The process continued forever, and D&D no longer works. Charts and probabilities that are designed to be functional and fun around the 15 and under range have no bearing on a game full of behemoth godlings.

GURPS is an excellent generic system, with a good eye toward realism and logic. It is also designed for characters of 100 points (hero material). During a long campaign, maybe you could push to about 150 points with earned experience. Try to go beyond a relatively low technology 100-point setting, and GURPS no longer works. GURPS Supers, with a base character value of 500 points, allows for more cheesy numbercrunches and bad mechanical failures than any other system specifically designed to handle superhumans. Try an Ultra-Tech campaign, and it becomes tragically comedic: you still have about 10 health, but now attacks are doing something on the order of 15d6 explosive damage. In either case, if you are attacked in a high-point value adaptation, either your armor protects you fully, or you are instantly vaporized. Now that's epic.

Street Fighter, my personal favorite for beer and pretzels combat-heavy RPG systems, is fantastically balanced, and works incredibly well. That is, until supplements are considered. Ever eager to make something "just a little more powerful," more and more bad rules for uber characters started to appear, adding more and more arbitrary and stupid super tactics and maneuvers, until the system becomes a complete joke. Grand Master Ryu has no chance against some choad who bought all the supplements.

As usual, the crime of making things more powerful becomes even worse in the world of the MMORPG. Once again citing Asheron's Call: It's an incredibly good game, the best of the big three. It also works really well and functions perfectly in regards to balance... up until level 35 or so. After that things become absurd. This is largely because early beta testing and in-house playtesting never went much past this point in a realistic fashion. It's been publically stated that only one of the development team actually played past this breaking point. Very quickly, players got way past this level, and the implementors are faced with a quandry: how do you provide content for superpeople? The answer was in raising the difficulty of seemingly simple actions like dyeing a piece of wool, adding supermonsters to camp, and almost monthly adding new kinds of gear that are just flat-out better than anything ever seen in the game up until that point. Naturally, because of this violation of the "zero sum" law, these pieces of supergear became the *only* thing to use, and the supermonsters became the *only* thing to hunt (as long as they gave out some phat xp). At this point, the 35 and under levels are more or less irrelevant, and content is being catered specifically to a class of supercharacter that the game was never really properly able to handle in the first place. Naturally, this just skews the game more and more.

The only MMORPG of the big three that has made a semi-successful effort to limit player power is, oddly enough, Ultima Online. Once you hit 225 stats and 700 base skill, that's it (unless you abuse a bug). You can shift those points around if you like, but you cannot go any higher. You will always have problems fighting things like dragons unless you cheese somehow. This is a blessing for UO, as it has so many other horrible problems with it related to code and people management that unlimited player power would have destroyed it within the first 4 months of retail.

The bottom line is that no game system can accurately and satisfactorily handle the concept of player characters too far outside of its rules focus. There is a logical reason for this not based in game theory: there is no real-life analogue for these people. You can only become so formidable as a person through training, practice, and mental exercise. With some luck you might become a Leonardo Da Vinci, or a Musashi Miyamoto, or a Yang Chengfu, or a Temuchin. You cannot realistically go from 5 hit points to 200 hit points with a similar increase in your physique and mental acuity, which is exactly what happens when player potential is not capped. These superbeings are far enough outside the scope of possibility that they too must be considered "black boxes" along with off-the-cuff magic systems.

The presence of superbeings with unlimited growth potential presents a neverending problem for developers. Players becoming godlike? Better get in some tougher, crazier stuff for them to try to fight, and some handheld tactical nuclear devices to fight them with. Got a lot of multimillionaires in your world? Better make stuff more expensive. The ogre chieftains and the evil warlock overlord you set up to be your boss monsters are little more than a joke, and so now you need to supplant them with something else, no matter how much it screws up your storyline. As the bar goes up, all your

players must rise with it, until your entire world-design that you so carefully crafted to keep everyone interested and happy is little more than a footnote, ignored by players as they rush off to superman status to defeat your newest hastily thrown-together enemies, forcing you to repeat the entire process.

It seems clear that a hard cap on the ultimate potential of your players is necessary in a system that allows for rapid development (in a pen and paper game, you could just give out less experience). Once a character hits this mark, he may be able to change his identity around a little, maybe he stops tilting at the lists so much to spend more time in the alchemy lab, but he cannot aspire to have so many hit points that he could casually charge the town guard when they come to arrest him with crossbows, or jump into a canyon because he's bored and live to tell about it. This becomes easier if you don't let the players see where the cap is (see "The No Numbers Concept" below). The content team will now have to be more diligent to make sure that players who feel they have maxed out already have something to keep them interested, but the inevitable path you take to do this (better storylines and immersive plots) lends far, far more to a gameworld than the prospect of improving your spreadsheet-characters.

2.7 Segregating Player Power

This is sort of a compromise that is made when the disparity between high and low power players is too great for a truly cohesive system to handle. Unfortunately this never works very well either. The basic idea is to force players of varying power levels into different regions, e.g. high-level land, newbie land, uber land, etc. Generally the solution is to limit certain hunting grounds to players that are (theoretically) within the power curve of the enemies found in that area, like a dungeon that restricts access to players of level A to B. There are three basic problems with this system:

It effectively makes the world smaller for every player, as the potential explorable landmass is restricted.

In most cases, safe zones like towns are still open to everyone, so the trickle down of unbalanced equipment cannot be stopped, raising your power curve for lowbies and encouraging twinking.

It mandates something like a level-based system (or one based on total character point value) which, in addition to being a silly artifice with its own set of problems, is not a decent barometer of actual player character survivability, punishing characters who spend more time on noncombat activities and associated skills.

A compromise solution I came up with during one of my numerous pointless eternal arguments with Allerion involves a variable power limiter built into the structure of the game world. The idea is to separate the game world into various "planes" or "regions" that allow for varying levels of total player potential. For example, in Great Britain player characters have a reasonable power limit, and once you reach your potential cap, you cannot advance further in terms of raw prowess, though you can pursue things like construction and baronages if the system allows for this. However, step into the land of the Fey, and you can keep improving to normally superhuman levels, returning to your normal power cap when you step back into Great Britain. Thus, you allow the power player to go forth and be Superman in a dangerous realm full of enemies that merit such levels of power, but in the "real world" the character can still enjoy the challenge of the Pict invasion, fighting side by side with his not-so-uber comrades. The drawback of this (besides code to scale down characters when they return from the Fey) is that it necessitates the use of a cheesy black box like "high mana area" or "different physical laws" to explain why people can become godlings in one area but not another, and the tracking of 2 or more sets of attributes for every player character.

2.8 The No Numbers Concept

The fact that a traditional RPG is essentially a numerical simulation has spawned a number of very annoying trends in player behavior. Most of these types of behavior can be subsumed under the term "numbercrunching." Also called "min/maxing," numbercrunching largely involves the study of the game's numerical systems and figuring out how to use it to the player's best advantage. Therefore, becoming a better fighter is more a matter of allocating your points appropriately, instead of logical considerations like developing advanced tactics, using terrain effectively, and personal bravery. The player character is reduced to little more than a spreadsheet, and players become obsessed with watching their numbers increase. Unfortunately, the game system eventually evolves to accommodate this sort of player with provisos like high-xp farming areas, repeatable activities to raise use-based skills efficiently with a macro, etc.

It is my firm belief that the axiom "most players are self-centered bastards who will ruin other players' experience at the drop of a hat" is greatly exacerbated by this numerical obsession. Why do players steal kills from other players? Because doing so will help their numbers increase. Why do players exploit bugs to kill monsters (or players) with relative ease? Because doing so will increase their numbers. Why do players use cheats and plugins that give them unfair advantages in the game world? You get the picture. Sure, some of this activity stems from a desire to simply ruin the game for other players, and some people gain enjoyment from this, but there is no way to deal effectively with this sort of player except to quickly identify and remove him from your game.

Now consider the effects of a use-based skill system where the numbers are *effectively* hidden from the player. This means he cannot see his exact strength or hit points, he does not know that his sword does X amount of damage per hit, and wounds are represented graphically only, either status bars, hit location indicators, or ideally an actual change in texmaps reflecting damage to specific body parts. The player will have a pretty good idea that he is decent with an axe, a novice at archery, and completely unskilled at alchemy, but he doesn't have a number to refer to as his "skill." Once in a while, he may receive a system message telling him that he has learned something new about pottery, but these messages should be unreliable and ambiguous. He may even be able to compete for titles in various contests of skill, but this is only an indicator of prowess, not a measurable figure that you can watch increase as you fight your eight millionth orc. Sure, there are players who will still go camp the goblins for "skill," but he can't really be sure it's doing him all that much good, and if the designer has been building his system holistically, it's not.

What happens now is that with visible numbers unavailable for scorekeeping purposes, players become less interested in keeping score. This puts more pressure on the developer to make sure there is plenty of interesting stuff to do for the player, once the possibility of spreadsheet tweaking is removed. Such a system requires more diligence and work on the part of the developer, in many ways, but the payoff is immense. With numbers removed, your environment becomes more immersive. With spreadsheets removed, you remove a great source of annoying player behavior. And you may be able to reclaim some of that market that abandoned computer-based gaming for more logical paper systems.

2.9 Death Systems for Persistent Worlds

Death in a pen and paper or small-group setting is relatively easy to handle, assuming the GM has decent judgment. Death can be cheated any number of ways through GM fudging, and the death of a character can remain an epic, traumatic event, in a way that is apropos to the story being told. In the MMORPG world, however, the consequences of death are harder to deal with. On the one hand, you want there to be consequences for death, or it becomes meaningless, and you have people routinely making suicide charges for XP or jumping from lighthouses when they get bored. On the other hand, dying in an MMORPG can be due to any number of stupid reasons, most usually lag or a badly timed disconnect. Losing all of one's possessions and possibly the character itself due to chronic router failure is frustrating to the point of cancellation, and more importantly, destroys the immersive quality

of the game. Nothing can be done to prevent technical failure 100% of the time, but this should not be a reason to make death completely meaningless.

In order to give some weight to combat activities, it must be dangerous somehow. In real life, the danger factor is obvious: everyone reacts to physical pain, and people generally have an aversion to death. In a pen and paper RPG, the danger is in losing a character that the player has an attachment to and a certain emotional investment in. In an MMORPG, death penalties are generally limited to a loss of some/all equipment and possibly some form of experience penalty. Please keep in mind that when devising a system for death penalties in an MMORPG, the primary goal is not to stop players from whining, as they will do that anyway. Yes you want to prevent people from becoming so frustrated that they cancel their subscriptions the first time they lag out in battle, but the primary goal is to devise a system whereby there is a reasonable level of risk attached to reckless, suicidal actions.

Permadeath is a tricky issue for MMORPG's. The loss of a character can be traumatic for sure, but this makes it an effective deterrent to acting like a nincompoop. It also carries a few other interesting benefits: the permadeath of a character can be used by a sufficiently advanced roleplaying subcommunity to expand the player-based lore of the game, it reduces the resale allure of characters via eBay (after the first few people buy an expensive account then get the character killed forever because they don't know how to play it), and it slows down the inevitable process of everyone reaching maximum potential in your world, thereby helping to maintain a more or less stable power pyramid from lowbies to ubers.

A compromise system, involving a limited number of resurrections before permadeath, could possibly work. A theoretical system Shadwolf and I worked out involved resurrections being performed by a house of worship of the character's faith (which incidentally increases the value of religion in the campaign to something more than "useless lore"). A character might have, say, 5 resurrections at the start of play. More resurrections could be earned by the character through devout service to the temple, religious questing, being a local hero, whatever, and would slowly regenerate automatically if the character was below 5 remaining resurrections. In this way, a character still has every chance to avoid permadeath unless he is involved in something very stupid or very heroic indeed, and if a player dies to lag 4 times in a short period of time, he should really be thinking about waiting for better conditions before playing anyway. Couple this system with temporary weakening and reasonable equipment loss, and now death is still something to think about, but you avoid the "killer dungeon" aspect of bad campaigns.

Permadeath can be further eased by the following method: On the permanent death of a character, after the big cutscene has ended, the player goes back to the character selection screen, where the name of the dead character is listed along with an indicator that he is dead. Choosing this slot now gives the character 2 options for a replacement character: either a newbie from scratch, or a "relative" of the old character, with the option of a new first name only. The new character has an appearance very similar to the deceased's, the same surname, and abilities based on those of the old character, maybe roughly equivalent to the dead character's power total over the starting base divided by 3. The old guy might be dead, but his brother/son/second cousin is there to reclaim the family honor! This is also a possible method for dealing with death/retirement by aging in a game, and assuming your game lasts long enough to cycle through enough game-years, one player can potentially write the family history of an entire line of adventurers. In such an aging game, the replacement character might have a power total bonus equal to the old character's divided by 2 instead of 3, as a little perk to a player who has managed to avoid getting his old character killed stupidly.

2.10 Marking Time

Time is an important concept in pen and paper RPG's (the good ones, anyway). It can be important to know how long you've been crossing that desert, or how long ago the 1-year ultimatum of surrender or die from the humanoid leader was issued. A sense of time lends credence to your world and meaning

to your lore, both in your world's recorded history used in your background, and in the ongoing chronicles of new events recorded for the benefit of the players.

However, time is also extremely inconvenient for any persistent world: players log in and out, for different lengths of time and at different intervals. Characters that are logged out are effectively in a stasis field: nothing affects them, and they have no impact on the world. As a further consequence, players who log in more than others have a significant advantage over other players directly proportionate to the amount of excess time they spend playing. Is it possible to find a way around this quandry? I believe there is, though like most things worthwhile, it requires some work.

Start with the assumption that you are going to keep track of the passage of time in your world. If you figure out that the average player will go adventuring for about 3 hours at a stretch, figure 4 real hours = 1 game day. Configure your day/night cycles and seasons to reflect this 6 to 1 ratio, and institute a calendar. Now you have a time context to work from.

If we figure that the player in question logs in for 3 hours per day, i.e. 1 day in 6, this is a pretty aggressive schedule for an adventurer. The guy heads out to do battle with the forces of evil (or opposition to his socio-economic interests) about once a week, and the rest of the time he is taking care of business in town, repairing his stuff, maybe tilting at the lists or studying in the encyclopaedia arcanum. A guy with no life who plays twice a day in 5 hour stretches is going on aggressive expeditions as his full-time job. A guy who logs in a couple times a week is more casual about active adventuring, sort of a fellow who likes to bash in a few monster skulls now and again, but enjoys town life and its security. These are decent parallels for the types of players who fill these schedules.

So what happens when they log out? It's silly to assume they are put into stasis. If they're taking care of odd jobs as an apprentice, working as an altar boy, farming, hunting, or just engaging in some good old manual labor, shouldn't there be a system that reflects this sort of off-hours activity? Implement a system where the player chooses a number of options for how he spends his off hours, and based on his location and condition at the time of logout, he does them. When he logs back in, the system begins by doing some checks for him based on the amount of time he was logged out, and maybe increasing appropriate scores. Naturally, the reward for these sorts of spare time activities should be nowhere near the reward for actual play time invested in character improvement, must be curved down the longer one is online to avoid the superman after a year of logout syndrome, and *never* result in monetary gain (assume all monies earned are sufficient only to pay for the character's upkeep and any incidental training fees), but it provides some sort of compromise solution for the player who just doesn't have all day to sit in front of his computer, playing the game nonstop, and eating up your bandwidth. This can also be seen as a sort of in-game macroing system, giving the development team more firm ground to stand on when they implement a no 3rd party macroing policy.

The offline hours activity system can also be used to compensate for the fact that player characters never seem to sleep. Simply calculate the amount of time the character has been logged on, divide by 3, and devote that much initial logout time to sleeping before you start doing things. Therefore, a character logged on for 4 hours real time (1 game day) would spend the first 1 hr. 20 min. resting. A character logged in for 12 hours would use the first 4 hours to logout time to sleep. This is a little unrealistic (stay awake for 3 days straight, then sleep for 1 day), but it beats requiring players to actually sleep at intervals during a marathon play session. To allow for players logging in before the sleep cycle is complete, assign a variable "Sleep" to the character, that increases the longer he plays. Offline sleep decays this value.

This can also be applied to the mundane details of life that people consider "not fun." If you want to be slightly unrealistic, you can mitigate the hassles of eating and paying taxes with an offline system. Using the sample system below, simply have the character forage more initially (or pay more for food in town, if he is not foraging) based on a "Hunger" variable, in much the same way you allow him to play catch-up with sleep. Whatever tax formula you wish to apply can also be resolved on login, the character paying a tax based on the goods in his possession over time. In order to combat the phenomenon of plays stripping naked just before logging out to avoid taxes, it may be necessary to

apply a "TaxBase" variable that tracks the player's possessions at intervals while he is online, scaling up the variable based on what the character was holding at the time of tracking. Taxes are then paid on the next login, based on the TaxBase accrued while online, plus a value based on how long the player was logged out and what he owned on logout.

2.11 Sample Offline Activity System

The character has a popup menu he can access via the GUI, listing the various offline activities he could possibly perform. You need to list as many as possible, since a character might disconnect anywhere by accident, and you don't want to require him to tailor 50 different lists based on all the places he might log out. A simple offline activity list might look like this:

Activity	Prerequisites	Possible Benefits
Heal	Being Wounded (default priority 1)	Damage is healed based on character's medical skill, increased if he logs out near an appropriate medical facility
Forage	Hunger (wilderness default priority 2)	In town, character defrays his offline cost of living by scrounging for food, with possible loss to social standing due to trash-rooting. In the wilderness, player hunts/fishes/traps/whatever for as long as he needs to in order to feed himself. Possible small increase to appropriate skills and controlling attributes.
Train (skill)	n/a	Character has the possibility of gaining a small amount of the chosen skill and controlling attributes. Efficiency increases if he proximity to a suitable training facility that he has access to.
Voluntary Community Service	Criminal Points below the threshold of possible instant arrest	Reduction of criminal points, possible loss of social standing.
Court-Sanctioned Community Service	Being imprisoned when the criminal point total on release would make instant arrest possible	Reduction of criminal points to just below the instant arrest threshold, loss of social standing. This activity precludes logging in until completed.
Mundane Job (description)	Job skills, being in town	Offline tax mitigation, possible small increase to job skills and controlling attributes.
Apprentice (description)	Artisan skills, proximity to an NPC artisan with room for an apprentice	Limited offline tax mitigation, defraying cost of living, possible small increase to job skills and controlling attributes.
Study (knowledge skill)	Proximity to an appropriate library facility or school, or possession of study materials	Possible increase to skills and controlling attributes. May incur additional fees or tuition if the knowledge type is especially arcane or otherwise valuable and being studied at a facility.
Social Climbing	Being in town	Possible increase to social standing.
Repair	Damaged equipment in inventory, appropriate skills and tools	Repair of damaged equipment, possible increases to repair skills and controlling attributes.

Default settings for this selection screen might be Heal, Forage, Mundane Job (Laborer). The character would, on logout, sleep for an appropriate amount of time, then heal if he is wounded, then forage for food until he was no longer hungry, then (if he was in town) work as a laborer to mitigate his taxes, possibly getting a little bit of physique in the process. If he was out of town, the third possibility is gone, and so all he does is sleep, heal, and feed himself.

The player may wish to modify his selections. For instance, say the player wants to become a respected soldier, aspiring to become a Field Marshal or such, and has enough money to be able to pay taxes. He might then modify his list to read Heal, Repair, Train (weapon), Social Climbing. If he was in town, he would sleep, heal if wounded on logout, then repair any damaged gear, then split his time between training at the barracks and hobnobbing with the nobility. He must be careful to not do this too long, lest he become impoverished. If he was outside of town, Forage would be a default priority for him since he's out of range of markets, and so he would Heal, Forage, Repair, and Train (weapon) on his own. Social climbing is not possible for him in this situation.

Note that there is no offline option to harvest resources or craft. This might seem strange, considering that realistic mining/lumberjacking/what have you is a slow and boring process that might be better performed offline. However, if such activities are allowed, one has to take special care to get around the phenomenon of "become a millionaire in your sleep," akin to UO macro-mining all night. The fact of the matter is that raw materials harvesting is an extremely hard and thankless job, especially preindustrially, and it takes a very long time to get iron out of the ground, UO's mining system notwithstanding.

A generous system might allow for a small amount of iron to be given to a player who chooses Mundane Job (Mining), but most of what the players digs up is going to go to his employer. Likewise, a player who chooses Mundane Job (Blacksmith) might be able to select something he could have created when he logs back in, based on the amount of time he was logged out. More generous allowances might be made for players working in their own shops. Likewise, a lumberjack operating outside of town, like a criminal or a hermit building a cabin, might also get some leeway, but the guy who wants to harvest 2000 cords of wood for making bows to sell should not be allowed this abuse. Simply have another offline activity selection called "Construction" or such to allow for this eventuality.

2.12 Twitch Factor

"Twitch" is a generic term representing the importance of manual reflexes to play a particular game. An example of twitch is aiming your gun in a first person shooter to hit a target. Another might be timing a jump to get onto a moving platform in a Mario type console game. Still another example would be the ability to quickly and efficiently coordinate troop movements and orders in a micromanaged Starcraft battle. All twitch play involves hand-eye coordination, fast decision making, interface control, and after a while, automatic reflexes burned in by hours and days of play.

Many games rely on twitch to play well. First person shooters are primarily, if not completely, twitch games. Almost all of the early arcade and console games (Pac Man, Defender, Galaga, Sinistar, etc.), not to mention pinball, are twitch based. As games evolved and a larger, maybe older, market was sought, twitch became less of a factor, or a total non-factor. Games where twitch doesn't matter are typically turn-based games like Solitaire, Myst, turn-based strategy, etc.

The modern computer-based RPG is generally a combination of the two. RPG's that are turn based are obviously complete non-twitch games. However, turn-based play is impossible in a modern MMORPG (the Realm's combat system notwithstanding: it is really a graphically-enhanced MUD). It's only barely tolerable to wait for others to take actions in a turn-based game involving as few as 3 people; in a playing arena with 2000 simultaneous users, it would be insane. It would stand to reason, then, that in such a realtime environment twitch would be an important part of player skill. However, in MMORPG design and player attitude, there is a decided distaste for twitch play, and this is reflected in the game engine.

The distaste for twitch play may stem from a prejudice on the part of RPG nazis who feel that the CRPG is somehow above the FPS, and thus should be above the FPS's reliance on twitch. There is some justification for lowering the importance of twitch in a progressive game that incorporates character building; after all, twitch depends on the abilities of the player, not the experience and design of the character. Nobody wants their level 10 character trounced by a level 1 character whose player can click the mouse faster. As a result, the importance of twitch has been vastly reduced (though not completely eliminated) in the play of the modern MMORPG, and as games "evolve," new mechanisms may be introduced to further lower the impact of good twitch play, such as UO's inclusion of Last Target into the client, eliminating the need for players to manually select a fast-moving target for spellcasting (or use a third party program to do it for them). The need for Last Target in UO was somewhat related to the awkwardness of its interface, however, and cannot be dismissed entirely as a cheap way of "making the game easy."

However, trying to do away with the importance of twitchy character control is a mistake when carried too far. In the early days of Asheron's Call (say up through about month 6 or so of final), character control was an important part of being a good player. Characters who were weaker "on paper" than the guy next to them could do extremely well in difficult situations if their control was good. High-powered characters whose players just let them sit still and auto-attack were more likely to meet an ignominious death. Because Asheron's Call has balance issues and no cap on player power potential, the importance of twitch went away. No amount of eye-hand coordination can compensate for the levels of raw power and invulnerability that players and monsters alike achieved. The long-term success of a character today in AC is determined almost entirely on the character's initial design and how much experience he has. The role of character control is limited to only the closest contests of power, maybe within a slightly wider range in the realm of PvP, but twinkling and a good macro count for far more now than a player's actual ability to react to his environment.

Increasing the importance of twitch play in the MMORPG allows some reward for the player who is actually good at playing the game in this manner, and helps to differentiate otherwise cookie-cutter clones from each other. This is not to say that twitch should be overwhelmingly important next to character development: nobody expects a total novice character to be able to whip an enemy way over his head just because he's got good reaction time and makes quick decisions. However, in combination with limiting player power, it can make all the difference for a truly excellent player at the top of the game's power curve, as opposed to someone who got there without mastering the interface.

Twitch also helps a game's longevity. As long as twitch and automatic reaction time are important, there is *always* room for improvement as a player. One can powerlevel forever and read endless message board posts about what theoretical combinations and tactics work well, but if the ability to execute these tactics is a function of the *player's* ability, there is always something to work for.

2.13 Beware the RP Police

A common trend on many small-scale games, and on private server games, is *mandated roleplaying*. This is a horrible horrible idea, especially in a wide area network environment. It's a direct backlash of the "serious roleplayer" community against "kewld00dz," a term that expands in meaning for every player to encompass "people who don't represent their characters the way I think they should." This arrogance is then handed down as law by the game administrator, who must then waste time monitoring the roleplaying or lack of same. Pretty soon, he manages to convince some like-minded RP nazis to do this for him, and before long the entire game is filled with people actively policing each others' roleplaying, judging everyone around them against a set of standards that none of them can actually agree on, and the game message board starts filling with lame accusations and arguments about "who's not roleplaying properly." To me, this is the first indicator that I should be looking for another game.

My girlfriend is currently fond of a Sphere shard with this sort of roleplaying-mandate attitude, and I can't stand it. Much of the apparent time spent on the shrd is dedicating to policing roleplaying, while

there are some glaring flaws in their default Sphere .52/Linux scripts that have obviously never been addressed. There are a number of guidelines on their page describing how you must be in character all the time, which extends to such absurd lengths as to say that it's wrong to just log out in front of someone, or to go afk without first making your excuses and goodbyes, then finding a remote area, then logging. What the hell is that? If someone in a pen and paper game said, "Damn, hang on a sec, pizza guy's here," I wouldn't accuse him of being a bad roleplayer for it. Needless to say, this shard's message board (the OOC board, of course) is filled with ridiculous back and forth banter about whether person X is roleplaying, or whether he should be penalized, because he did something that offends the tender sensibilities of the posting RP cop. It's funny to note that the reaction of the "true roleplayer" in these situations is to immediately look at a non-roleplaying solution, i.e. GM intervention or banning.

I've already made this argument in a little-read old UO rant, which deals with a situation involving high-handed RP nazis on the Catskills shard. The gist of it is this: you *cannot* mandate how people choose to represent their characters, you can only encourage them to do it in a certain way. People do not subscribe so they can take acting classes from a bunch of geeks who suck at acting themselves, they do it to play the game. The perceived problem is that the "bad roleplayer" is ruining the flavor of the game. The *real* problem is that the whiner can't bear the thought that other people might not envision the play world in exactly the same way that they do, and they can't deal with it. From a player standpoint, it's really easy to deal with. Simply have your character accept that people are different sometimes, although this may be outside the scope of possibility for the player in real life. If someone is spamming net talk around, just treat them like anyone in the real world who mouths off uncontrollably and unintelligibly: as an insane person.

This seems to be largely an issue for the players of a game, rather than the developers, but the two are subtly linked. Much of the behavior that breaks fiction on the players' part is due to shortcomings of the system. If your game rewards players for macroing in a mana pool or hiring an NPC to spar with for a week straight, they will do it. If the mechanics of your game are visibly numerical, people will talk about their abilities in terms of numerical scores. If there is a weapon imbalance that makes a billy club the most powerful weapon in the game, everyone will carry a billy club regardless of its unrealism. Certainly you cannot eliminate these sorts of references to game mechanics by players, but you can minimize their fiction-breaking potential through design. In this case, you can control these impacts by reducing the appeal of macroing, hiding the numbers, and careful balance. A game should never dictate to a player how he should approach the game, but it can certainly encourage certain behavior.

3 Balance

3.1 Zero Sum Rule (Shadwolf)

There are several different genres of game today (sadly less than there use to be). Each of them has its own peculiarities, but all seem to have the consistent problem that imbalance develop in nearly every game designed. Observation of these games has lead me to the conclusion that there are certain similarites in many of these games. For these purposes, I will be dealing with any game that deals with combat. This includes pen and paper RPGs, CRPGs, RTSs, FPSs, MMORPGs, turn based strategy games and a variety of others.

There are a few basic considerations for combat: how fast is the unit, how much damage does the unit do, how fast does it do damage, how hard is it to hurt, and how much damage can it take before it is disabled (not neccessarily killed). In an RPG or FPS, the unit is the player character or their opponents; in a strategy game this refers to the combat units of all sides.

The first of these considerations, and possibly the most important, is how much damage the unit does. This is closely linked with how fast the unit does damage. The hardest part of solving this is picking a useful unit of time. This unit should be based on how long it will take to kill another unit. This unit of time can then be compared to the damage of a given attack to generate a damage over time ratio. This should include the healing rate of the average unit. If you do 5 points of damage in a given time, but the target heals 2, you only actually did 3. This damage should be expressed in terms of a percentage of the average health a unit has. Thus, you should end up with something like a 5% per second or a 7% per round ratio. A maximum and minimum value has to be set for this. Many a game has been broken for lack of this. Most games start with a maximum, but each new episode or suppliment wants to add a weapon or attack that is more powerful than anything that's been done before. The values keep climbing and the game gets broken. You need to ensure that this maximum is never exceeded, now matter how cool or unique the circumstances. A good guideline is around the maximum health possible for any unit. The minimum is a little harder to judge, but it should be at least higher than the minimum rate at which a unit can heal.

Once damage over time has been determined, a value should be assigned. Remember that higher damage attacks have a better chance of killing the enemy in one shot and so should have proportionally higher values. An example might be as follows:

D/T	5%/turn	10%/turn	20%/turn	30%/turn	50%/turn	etc.
Value	1	2	5	7	15	etc.

Next, how hard is this unit to hurt compared to other units? This would then be expressed in terms of what percentage of damage it typically avoids. This would then allow you to determine how many shots an average attack will take to disable the unit. This number would then correspond to a value much as damage over time did. This value would be added to the damage over time value.

The last positive value to add would concern how fast the unit is. The value for this would depend on not only the speed, but whether or not there are ranged attacks and how this speed affects the use of thos attacks. If the speed is high enough to constantly stay at range and avoid melee units, or to close with any ranged unit before it can fire, then this value should be inordinately high. If it is fast enough to allow one melee unit to eventually close with another, it should be moderately high. Again, this value is added to your total.

As a balance to all these values, cost must be determined. Cost may have up to three factors, initial cost, upkeep cost, and time to produce. Initial cost should be the least of these. The three should balance out to give a negative cost which reflects the potential usefulness of the attack or unit. This cost, when added to the above values, should give you a zero sum. The net effect is that all attacks, if you've done it right, should be balanced.

How this works:

For an RTS you might have infantry that would be slow, weak, but cheap. Cavalry might be much faster and have a stronger attack, but be weak on hit points and cost more. A dragon might be stronger, faster and harder to kill, but the cost and upkeep would be outrageous.

For a pen and paper RPG, a CRPG or an MMORPG a fighter might have a good fast attack with his sword that does moderate damage and costs him one stamina per round to use while a mage might have a fireball that does huge area effect damage at range, but takes 3 turns to fire and costs 10 mana to cast.

These values work best if stats are kept as low as possible. If the weakest character has 3 health and the strongest has 10 and most attacks do 2 to 4 damage, there is a good spread and all characters will be fun to play. If the weakest player has 10 health and the strongest has 250 and attacks do anywhere from 10 to 100 points a shot then any character with low hitpoints will be perpetually one-shotted whereas the high hit point players/units/monsters will completely invalidate the use of any but the most numbercrunched weapons.

3.2 Too Little is Better than Too Much

Once you have defined your baseline for your zero sum formulae, things get tricky, which is why there is a need for constant system adjustment via patches in a persistent world. When these adjustments are made, you try to get as close as possible to the ideal balance, but in general, you're better off erring on the side of caution than excess.

The reason you want to err on the side of caution is to make sure that you don't invalidate most of your players' options. Say for example you have a set of weapons available to players in an extremely simple middle ages-style RPG. Barring weapons classified as ceremonial/gladiatorial/desperate, you have the following choices: axe, sword, spear, mace, dagger. This system is very simple, and the weapons behave pretty much like you'd expect them to. However, you have a rogue developer on your team with a personal bias about the dagger, and it winds up being imbalanced.

First let's see what happens if he thinks the dagger should be better. Maybe he was stabbed in a barfight or something, and attaches more importance to the dagger as a result. Therefore, when your game is released, the sum of your factors for axe, sword, mace and spear even out nicely to zero, but your rogue developer has increased the damage and accuracy of the dagger disproportionately, and the dagger's new total is around +4. How long do you think it will take for the players to pick up on this? Now instead of having 5 viable weapons to choose from, you have one. You have just lost 80% of your character type variety, not to mention the whining you will have to deal with when you nerf the dagger down to acceptable levels.

Now let's say the rogue developer thinks the dagger is exceedingly silly, and thus lowers its speed and damage ratings. The dagger now has a rating of -4. It's still a problem, but now your viable weapon choices are limited to 4 good, balanced weapons, instead of the 1 they had in the other scenario. It's still a problem, of course, unless you want to relegate the dagger to the ceremonial pile of substandard weapons nobody will ever use under normal circumstances, but when you fix *this* problem, it will be seen as a buff, and in the meantime your players aren't all running around carrying nothing but daggers.

3.3 Why Nerfing is Good

"Nerf! Nerf!" is the eternal cry on dev boards whenever something is perceived as being weakened by the game's designers. Let us suspend disbelief for a moment and assume that for once the implementors of patches are not making a horrible mistake based on skewed misinformation about the way the game works, and that this "nerf" is being used correctly: as a balancing technique. Something in the game has been identified as being too powerful, and a nerf is required to bring it in line.

Used in this way, the nerf is an excellent and *vital* method of maintaining a sense of balance. If you choose to not nerf the offending object, a universal (and much misbegotten) policy in Asheron's Call, there are only two other options open to you:

Buff everything else until it seems like everything is in line

Leave it broken

Neither of these "solutions" works. The first option, the common solution for power problems in Asheron's Call, leads to unstoppable and never-ending inflation of player power. It also tends to lead to more problems than you initially had. If element 4 of a weapon set including 1 through 9 is considered overpowered and you subsequently buff weapons 1, 2, 3, 5, 6, 7, 8, and 9 to compensate, you run a tremendous risk that one of these weapons is now overpowered, which leads to another cycle of buffing, etc. etc. Compare this to the nerfing cycle: element 4 is nerfed back down to a balanced level, and if you nerf too far, you can always nudge it back up slowly until it works. This, coincidentally, was the "pendulum" method of fixes during Asheron's Call beta, and it worked considerably better than the "no nerfs" nonsense they use now. (See the section above, "[Too Little is Better than Too Much](#)," for elucidation.)

The second method, leaving the game broken, is even worse, but it happens on a semiregular basis. In games that are not persistent, like Age of Kings (early), the trebuchet was horribly unrealistic and therefore could be used to devastating effect. Why bother building a mixed force if a trebuchet is as easy to maintain as a peasant levy, and far more devastating and hard to destroy? (To their credit, the publisher did eventually patch this.) In Heavy Gear, the bazooka was implemented as a guided weapon (which is incorrect from the standpoint of the original Heavy Gear tabletop system), and if you could get one, there was little reason to get anything else. This was never changed. Typically, such a game's publisher looks at a product like this as a product with built-in obsolescence, and so he leaves it broken rather than devoting company resources to fixing it, when that manpower could be steered into producing their next income-generating broken game. The buying public is gullible and stupid as a rule, and although I might never again buy a product made by that team as a result of their shortsightedness, many others will. It's easy to see where the profit lies. (NOTE: The *only* game to ever be successfully and persistently fixed for balance after publication is Starcraft. End result: Starcraft is one of the most popular computer games of its time, and the absolute *best* RTS game on the market even today.)

In a persistent subscriber-based game like an MMORPG, there is considerably more pressure on the development team to fix mistakes and address balance issues, but it doesn't always happen. In Ultima Online, lord of all buggy cesspools, bugs that allowed cheaters to loot houses and instakill other players were not fixed for a very long time, explained away as "creative uses of magic," until subscribers began cancelling in droves, at which point this sort of bug abuse suddenly became their biggest concern. In Everquest, there are character classes that have *never* been on par with other classes, and they have never been fixed *despite* subscribers leaving. In Asheron's Call, foolish mistakes like tuskers being worth an inordinate amount of XP for the risk involved in killing them should be considered game-destroying snafus, but it has been publically stated that they will not be reworking these creatures, most likely due to this "no nerfs" bullshit.

Let me digress a little more about Asheron's Call and the value of nerfing for a moment, as I have some experience with this game system and its absurd policy of not nerfing. One of the largest problems with Asheron's Call is the predominance of the 3-school archer/melee, particularly the melee. The initial buffing of these classes was due to a perceived dominance of mages in killing effectiveness. This was a correct observation, but the answer (buffing other character types) was absolutely the wrong one, and led to a nigh-infinite series of additional class problems that have only gotten worse through the game's history. The correct solution was to look at why the mage was so powerful. The answer was that the mage had an extremely powerful attack (war), but it was also nearly impervious to damage due to the overwhelming power of Life and Item protections. The *correct* response would have been to nerf these protections and their associated vulnerabilities, most especially Imperil. Had this been done right away, we would not be seeing the sorts of absurd class problems that fuel the fires of particularly vitriolic ranters.

4 Food Basis

4.1 Everything Starts with Grain

You can tell a lot about the way a culture will develop when you figure out what they eat. Since most fantasy-era RPG's are set in a quasi-medieval setting with established town centers, the important food factor is what sort of grain the people are eating. Agrarianism is a prerequisite for stable settlements, and once the locals are harvesting grain, you have the luxury to develop other ideas, and the necessity of a system of supervision and food distribution that doesn't exist in a hunter/gatherer setting where everyone's primary duty is to get enough food to feed themselves every day. In a very real sense, the actual base economic unit of the preindustrial society is not the coin, but the bushel of grain.

The first thing influenced by food is how many people can be supported given a certain amount of arable land, and how much of the population must be dedicated to farming. A primary crop of wheat can support a certain population per acre, barley a different number, oats different again, etc. Because game designers tend to be unimaginative, they tend to use wheat as the primary crop if they've even bothered to think that hard about it. A general, historically accurate figure is that each wheat farmer produces enough food for himself, his 3 non-farming dependents (who don't get as much food as the farmer), plus 10% surplus, taking into account the amount of grain you need in reserve for replanting. This means that for every non-farmer (adventurer, politician, soldier, etc.) in town, there must be 10 farmers raising wheat. This figure reflects the best technology available in a preindustrial society prior to the late 18th century, where advances in erosion control and fertilizers increased yields. The sort of technology we are talking about here is the kind you would expect to see in a fantasy quasi-medieval society: heavy plows and the wooden horse collar. Wheat farming has the considerable advantage of encouraging draft animals and horsemanship with increased hay and feed production, which in turn leads to cavalry. Each farmer generally works about 7 acres of wheat, and assuming your society is using a three-field system, each farmer would require about 10 acres, including the land that is left fallow that year (generally used for grazing while the land replenishes itself). Using a rough conversion of acreage to square miles (640 to 1), each square mile of wheat will thus support 64 farmers and their families plus 6.4 non-farmers. A typical farming village in old England of about 180 people thus requires 3 square miles of arable farmland, which is in keeping with the fact that such villages typically existed about 2-3 miles apart.

However, if you are trying to design a civilization that has relatively tight borders and supports a gigantic number of people, you have to either say they trade for their food from less populated farm regions (raising the cost of living for everyone in the city) or say there is a very high-yield crop/farming method that allows for large population support on smaller acreages. Corn is an extremely high-yield per acre crop, and can be used as your primary food source, although you have to get around the fact that corn is very susceptible to blights and such in an early farm culture. The middle american cultures subsisted almost entirely on corn, and its efficiency allowed them a spectacular amount of leisure time to develop technology, but every few years they had to contend with massive starvation because a crop went poorly. Rice can also support a tremendous number of excess people above the number of workers required, but rice is a bizarre crop that allows for a virtually unlimited number of workers in a small area, each of whom produces just slightly more than what he needs to survive himself, working throughout the year in several harvesting cycles. This makes it attractive to small landmass communities like those of feudal Japan, but creates a whole new set of social implications. This will be discussed later.

Rice does not encourage the domestication of horses, hence extensive, specialized cavalry is not a natural outgrowth of rice communities. (This can be convenient for a game designer who doesn't want to be bothered with horses.) Horses were used in a few non-wheat based cultures, notably the Mongols and the Japanese, but they fed on available scrub, and they never reached the level of

universal application or breeding as a wheat culture's horses. For instance, neither the Mongols nor the Japanese bred specialized draft horses as did the Europeans, thus they never got heavy warhorses, thus no close formation lance-using heavy cavalry.

It's conceivable that corn could encourage horse domestication, but there is no historical reference for this, since horses were not available in the new world until introduced by the Europeans. However, the use of horses is quickly learned when they become available. The Sioux people almost immediately became a culture based entirely on horses when they were introduced.

Supplementary food sources also have an effect on your maximum population per acre of arable land. Generally, the typical inland European diet of the middle ages was very light on meat, at least for the peasantry. Upper classes would demand more meat, but you don't have to get too deeply into detail here. The thing to keep in mind is that herding animals that require grain to feed are roughly 1/10 as efficient as the raw crops in terms of pastureland. Therefore, if you want to have the typical fantasy idea of a roasted haunch in every tavern, you need to allocate even more land to pastures. However, to make up for this there are some land-efficient methods of getting meat into the food chain. Pigs are typically left to run in contained forest areas to forage for themselves, effectively harvesting nuts and roots (and garbage in the form of slops) and converting it to ham and bacon. Game can be taken, of course, but if you go too heavily on the idea of game you deplete the forest and run out of game in subsequent years, thus hunting cannot be relied on as a major source of nutrition. Cattle and the like can graze on the town commons, saving a little bit of pasture area.

Fishing can be incredibly efficient in areas that can support it, taking up no land at all and returning large amounts of protein, especially if your civilization has advanced fishing technologies in the form of nets, boats, and possibly even fish traps. A fishing village can generate up to a 150% surplus, and fishing industries helped to fuel the prosperity of the early Normans, and the rise of a better-fed and richer middle class. North American tribes along the Delaware river were able to harvest as much as 20 million *tons* of fish annually, raising their standard of living considerably. However, people tend to get sick of fish very quickly, and there should be an alternate food source. In modern-day African fishing villages, dogs and cats are considered edible and desirable as food, and can be traded for goods and services.

If all else fails, you can use black box devices like "magical weather control and soil refreshment" which allows for more than one crop of wheat to be harvested per year, and negating the necessity of a two or three field system, i.e. no farmland is ever fallow. However, an unrealistically superior food source which is easy to harvest, i.e. massive amounts of fruit on every tree, tends to lead to a sedentary and primitive society due to a lack of need for innovation and industry. Jungle communities that subsist heavily on readily-available fruit tend to stay in the stone age while the rest of the world is forced by necessity to move forward.

Once you have your food sources determined and a supportable population figure, you can tell a lot about local political systems from what your crops consist of. In the case of wheat, barley, and other annual grain crops, this contributes to the feudal system of "Lords of the Land." When you have food and land to grow it on, someone is going to inevitably try to take it away from you. This results in the creation of a warrior class, dedicated primarily to holding onto the farms, and maybe taking the next guy's fields as well. These warriors are excess people, and don't produce food themselves, taking it instead from the farmers. Now your army becomes somewhat organized under some form of leadership, and because they have the power to keep the peasants breathing, they naturally assume a leadership role, sometimes going so far as to bar the peasants from owning proper war gear out of a sense of job security. The farmers keep the warrior class from starving, the warrior class protects them from invaders and wild predators. Historically speaking, wheat farmers and the like stayed in their appointed social station, only rebelling against the lord when they were taxed so heavily that they began starving to death. The lord of the land, for his part, typically taxed the peasants as heavily as he could possibly get away with, but woe was the lord who starved his farmers to death. (Example: Wat Tyler's rebellion, 1381.)

Rice and the methods required to grow it bring about a different social system. Because rice is a relatively low-margin food source (i.e. very little is produced in excess of what the peasant requires to live), you need a phenomenal number of people working relatively small rice fields if you want to support a warrior class to keep your people safe. This requires a very advanced and strict management system in which everyone *must* obey the taskmaster, or the whole village will starve. This is likely the origin of the strict disciplinary tradition of the early Japanese people, which continues to influence the culture even today.

Taking our example of fantasy supercorn, we have here a crop which is exceptionally high-yield, and relatively few farmers can support a large number of excess people (say, the population is merely 60% peasantry, as opposed to a more realistic 90%). The social implications for a supercorn farmer are significant. On the one hand, this production of excess crops can mean the farmer has more freedom of choice and status, especially if supercorn is hard to cultivate properly. If this is the case, the farmer who can get maximum yields out of his supercorn has been elevated from unskilled laborer to desirable artisan. The growers of supercorn may even have enough clout to form a guild, but this is unlikely; food is such a basic requirement of society that any attempt to "strike" or price-gouge by supercorn farmers would probably lead to the warrior class beating them down. If hedge-wizards are required to get a faster crop rotation, then these specialists may have political power and influence, although they would almost certainly be civil servants and not player characters. However, the political intricacies of supercorn farming NPC peasants are not really important to the player usually: it's just something to keep in mind when creating a believable social system.

4.2 Kingdom Size and Armies

A badly designed fantasy campaign typically includes completely off-the-cuff sprawling empires and holdings of the local king. "Well, this here kingdom is 500 miles by 500 miles, about, and like it's divided into 250-square mile quarters which are governed by dukes..." Unless the army rides around on motorcycles and Lear jets, this is not going to be the case.

In the preindustrial community, the area that a "monarch" can claim is effectively about 15 or 20 miles from the capital, or wherever the primary military base is. This is about as far as his soldiers, tax collectors, sherriffs, and what have you can maintain his authority, yet still be under his control. This is because of two factors: one, how far his men can ride comfortably on a daily basis, and two, the size of the army he can support with his excess food production.

Another consideration is how far the peasants have to travel to get their goods to market. This is considerably less, since the peasantry don't have access to stables full of high quality horses and changing stations, and must often carry their goods in by foot, or ox/draft horse wagon. Markets should be no further than one-third of a day's travel from the furthest farmer to be practical (this concept is known as the "rural edge"). This depends on the quality of roads and how convoluted the terrain is, but assuming you have reasonable terrain and metalled (paved) roads, figure that farmers would not be functional further than 5 miles or so from the market. Wagons are slow. There also has to be a provision for getting required food into the urban center, which is typically in the middle of a county. Considering that you don't have good refrigeration or preservatives, the food should ideally get to the city as fast as possible. Therefore, if you look at markets as an extension of a kingdom's central power, you cannot have a gigantic metropolis supported by dozens of layers of markets. The food would rot by the time it made it through the gates.

Getting back to the consideration about soldiers for land defense and control, one has to discard immediately the nonsense about armies of 100,000 men clashing in huge slaughterfests on the battlefield. You simply cannot support an army that is larger than your peasant population. If you assume that your society is *heavily* militaristic, with a need for a big deterrent to invasion, maybe 4% of your total population might be members of a standing army (40% of nonfarmers), with the possibility of raising 6% of your total population as peasant levies (7% of total peasants, or about 20% of working peasants) in times of crisis. It should be noted that if your kingdom enters a full-scale conflict, most of

the front line is going to consist of these peasant levies; the standing army will be spread to a number of positions in case of surprise attack, and to function as reserves. This is a good reason to avoid war, as you can only lose so much of your peasant population before you start running the risk of starvation.

Using the supercorn example and supplementary nutrition like fishing from the preceding section about food, the entire size of a king's holdings can be compacted even further. This gives the military a great defensive advantage, since they have less farmland to defend. This could be a very important consideration in a fantasy campaign, where the supercorn farms are occasionally raided by giants, requiring a more concentrated defense force to drive them away. In addition, if supercorn is less labor-intensive than wheat as well as less land-intensive, you free up more of your population, and thus your standing army can be larger. You also have more people with free time to think up interesting ideas like calendars, a church, arts and sciences, and magic.

4.3 Geriatrics, Sexual Roles, and Agriculture

Modern conventions that have been placed into most role playing environments include unrealistically good geriatric care and sexual equality, at least for a preindustrial culture. Without getting into a detailed and fervent history of attitudes toward the elderly and women's suffrage, a game designer with an eye towards immersive believability could stand to benefit from understanding the reasoning behind the history of these causes, and the implications of introducing them into a setting which historically could not support them.

In a preindustrial agrarian society, everything is based on how good your harvest is, and therefore on how many able-bodied peasants you have at your disposal. Able-bodied peasants generally referred to males between the ages of 16 and 40 or so. These were the people who kept everyone from starvation and allowed for more leisure time among the aristocracy and artisan classes, so they could develop technology. As outlined earlier, the peasantry typically comprised at least 90% of the total population, if not more. However, out of everyone that lived on a farm, only able bodied laborers were immediately important to the harvest and therefore the tax base. This excluded three major groups of "peasant dependents":

- The very young
- The very old
- Women

The very young were unable to work effectively at food-gathering, and even if they were doing chores like milking cows or collecting eggs and berries, they were not producing enough to feed themselves, let alone support any excess. They were important only because they would eventually become food producers or childbearers themselves if they lived that long. This still did not make them as important as the farmer himself, and if there was a famine, the children generally starved to death rather than the productive family members. This seems horrible from the modern compassion perspective of "feeding the children before yourselves," but this ethic is only possible because our food production technology is sufficient enough to support it. If the children starve in a preindustrial farmhouse, you have less of a drain on the precious little food that remains, and you can presumably always make more children to replace them. (Note that during the Irish potato famine of the 1840's, ethics *did* dictate the feeding of children first, but they starved anyway as a result of being fed the inside of the potato, while the adults made do with the less appetizing, but more nutritious, peel.)

The very old in a peasant house are doubly penalized. The first consideration is the same as for children in that they cannot work, but they will never become strong farmers again. In effect, all they do is eat. This makes them a liability to the farmer, who now has to support more mouths and still pay his rent and taxes, and also to the lord of the land, who sees the elderly as a useless food sink that cheapens his tax base while returning nothing. (The concept of gratitude for services rendered is another modern ethical consideration that can only exist when technologically feasible.) As if this

weren't bad enough, medical care was understandably extremely limited, and one reason the elderly were not such a problem for the population was that a peasant was usually dead by the time he became unable to work. Old people are more susceptible to injuries, as the body stops regenerating as efficiently once the capability to propagate the species is gone; he is as useless to the gene pool as he is to the lord of the land. A fall resulting in a broken bone was usually fatal.

Women had a number of things working against them from the standpoint of food gathering in the European system. The first is the difference in bodily functions with men, particularly the lack of explosive upper body strength, which is important for hard manual labor (or killing something with an axe) unless it's something relatively easy like rice sprouting, and rice-based cultures often did have women working the fields alongside the men unless they were having children. Secondly, the advantage of human females in metabolism works against them: since women can survive longer without food and water than men (except during pregnancy), they tended to get less nourishment. The primary role of women in this sort of society, where the survival of the species was actually something to worry about, was childbearing. This was a full time job in many cases, since you took it for granted that a certain number of your children were going to die before they reached maturity. Having lots of kids was both a societal and genetic imperative. Coupled with the incredibly high rate of death during childbirth, this meant that women in the European theatre generally led short, miserable lives that consisted of little more than light hand industry and birthing. Without the technology to improve their lot, and the lot of the society, it was an unfortunate inevitability.

Concerns about the elderly only really apply in a fantasy campaign where time is important, as it is in any really good campaign. The elderly members of the peasantry are still effectively useless in the agrarian power structure, though. They cannot farm, and eat the food that others bring in. The archetypal fantasy mage often tends to be old, but one can assume that a mage is by all rights a member of the aristocracy or the nobility, with access to better healthcare and nutrition than anyone else, and historically only the upper classes lived to advanced age. If you want to present a more compassionate face for your society, you can say that the excess food production from your fantasy supercrop allows the elderly to be supported, in effect a technological advance that permits a new ethic to flourish. You must be careful, though, to avoid a situation where longevity is the norm for every member of society, or the elderly will be eating food they haven't grown for many many years, draining the economy past self-sufficiency very quickly. For this reason, magic should not be allowed to act as an advanced anti-agathic agent, and the old ex-farmer will still die at what would be considered a very young age today. The same rationale can be applied to the survival of young children, simply by lessening the risk of famine. However, a situation where magically created food can sustain everyone infinitely should be avoided, as such a situation creates entirely new sets of social problems that are outside the scope of a comprehensible fantasy game for a modern player.

Now let's assume that because you don't want your fantasy game to be picketed by the Women's Liberation Movement, you have a caveat that women are equal to men in all ways. Actually, this is not true: what you are really saying is that *player character adventurer* women are equal in all ways to their male counterparts. The peasant woman is still probably dying while having her third baby, but the peasantry is pleasantly invisible to the players. However, there are some interesting implications. If women have the same physical potential as men, this means that the peasant wife can now be very productive during the planting and harvest... not as productive as the man, since some of her time will still be spent trying to deliver babies, but say about 80% or so. This raises the female peasant from the role of "dependent breeder" to an important part of the agrarian community. This means that there is less waste and overhead for the peasantry, resulting in a higher surplus yield, which means you have more people with free time.

Women are still valuable as the mothers of the next generation, though, so how can you reconcile this with the idea of female adventurers risking life and limb without restriction? You must assume that magic allows for safer delivery, and that the midwife is the magical equivalent of a primitive but functional maternity ward. Magic can also act as a blackbox form of pediatric care, and so less peasant children die before maturity. If this is the case, then the people have less of a problem with women getting killed on the battlefield, since the next generation is more safely assured.

4.4 Matriarchal Societies: Women's Rights Footnote

A point raised by Penelope Baker (Jin Lee) while I was looking for nitpicky points was that there were societies where women were not treated as breeding chattel, but were actually in higher social positions than the men. Examples of this are the matriarchal priestesshood societies like some of the early Celts. Females were considered to be closer to the Earth Mother, or what have you, and had appropriate status and authority. Civilizations that encouraged a feminist military ethic, like some of the splinter Greek cultures, tended to die out fairly quickly due to a lack of offspring.

A female warrior tradition is more prevalent in pre-iron cultures, notably the early Celts. In a hunter/gatherer or *very* early agricultural society, you have a far more limited population, and therefore everyone has to act in the defense of the community. The religious importance of the goddesses Macha and Morrigan among the early Celts reflects this, especially in the case of Morrigan, a brutal warrior goddess. Cuchulainn was trained by a female warrior from Britain, and there are surviving accounts of warrior queens, Melb, Cartamundu and Boudeccea. Eventually, the Celts were attacked by civilizations that had stratified into a more complex, stable agronomy, allowing them to use iron more effectively, but placing their women into a more traditional noncombat role. Celtic legends seem to reflect that the female warrior castes did not favor very well against the male-dominated aggressors (whether this was a result of iron vs. bronze, or this in combination with a lack of explosive upper body power, is not clear), and the roles of Macha and Morrigan were subtly changed in reaction to this. Women still played a role in the defense of the community, but their role was now more supportive than front-line. Morrigan ceased to be associated with traditional weapons, instead leaning more heavily towards magic, shapeshifting, deception, and treachery. The female warriors of the Celts were more heavily involved with planning, training, fortification defense, espionage, and the like.

The dominance of male-ruled society in the British Isles relegated the Celtic goddesses to even lower status, sometimes even reflected in legends involving the rape of goddesses, followed by death during childbirth. The Irish, who were less consumed by war, also reflected this trend, but their goddess figures took on a more egalitarian role as wife and mother. This did not change the fact that as the iron age progresses, women were removed almost completely from the battlefield except in extremis.

The first Queen of England, Queen Maud (1102-1167), daughter of King Henry I, was somewhat famous for her 19 year war against her cousin Stephen, who had the backing of the nobles who disliked the idea of a female monarch. Their cat and mouse game with the throne continued until Stephen's son and heir died, at which point Maud reached a compromise with Stephen: Stephen would be king, and upon his death the crown would go to Maud's son by Geoffrey of Anjou, Henry II. However, 12th century England was already somewhat civilized, and the division of labor between men and women was set, so the actual fighting was done by the men, so regardless of Maud's technical leadership of her forces, she did not go out herself and hack at the enemy. (Irrelevant note: Interestingly, Henry II also had a sort of power struggle with his queen, Eleanor of Aquitaine, but Eleanor did not lead a rebellion herself, rather setting their sons against Henry II. The son who wound up winning the throne was Richard the Lion-Heart.) In any case, by the time cultures develop into settled iron age systems, the women are more rigidly segregated into home care roles. Examples of females of the noble class are almost universally in behind-the-lines leadership roles, and the oddities of the nobility are never universally applicable to the population at large, as "surplus people" always fall under different rules.

Other matriarchal or relatively equitable societies also flourished, for example in early China, but there was still a strict division of sexual roles. Women's role in battle and labor-intensive occupations was still extremely limited, and much of their time was still spent having children.

In any case, a matriarchal society is undesirable in a modern RPG setting for a mass market. If women are inherently holier and more authoritative than men, then they *must* be designated as NPC's. Inherent governing authority by virtue of a sex selection box doesn't make for balance. Even if you balance this out with limitations placed on female player characters, you wind up with (at best)

an unbalanced situation where sex is chosen based on what sort of profession the player wants to follow, or (at worst) a situation where one sex is unable to participate in the majority activities of the game, and is therefore undesirable.

4.5 Monsters and Food

A fantasy campaign traditionally (though not necessarily) includes monsters in its population. These monsters are of three basic types: humanoids, nonhumanoids, and fantastic beings.

Humanoids are the fodder of most worlds. Orcs, goblins, trolls, ogres, fuzzy cat people, whatever... these are the bread and butter of the adventurer on the line, and they come in sufficiently organized numbers so as to pose a threat of invasion, giving the humans an excuse to hate them. If you are concerned with realism in your game design, humanoid tribes will have much the same concerns as human civilizations, primarily food, terrain control, etc. Relations with the humans will typically be exasperated at the start of the campaign, explained by factors like an inability to communicate well, vastly different ethics, and plain old competition for resources. However, the humanoid monsters generally do not possess the potential for personal prowess that humans have, as evidenced by the fact that human adventurers tend to kill them in great numbers. We can thus infer that the typical humanoid lacks sufficient technology to allow him to progress, and is locked into a more or less nomadic hunter-gatherer tribal existence. They probably do not have a high degree of metallurgy and use bronze and stone for weapons, and hides, wood and bronze for armor. Their lack of agriculture makes them wander around in search of food, bringing them into conflict with territorial humans. Lack of agriculture also makes them less likely to have the leisure time humans have, and so they are slow to develop new technologies, including magic. Given all of these disadvantages, they have to have some sort of compensation to avoid being wiped out offhand by the humans. The simplest advantage is *faster breeding*, the single most important evolutionary trait there is. This also increases their need to take more land for foraging, putting them into increasing conflict with humans. Other advantages may take the form of military readiness: with no farmers, every humanoid is a hunter, and capable of fighting. Hunting societies tend to breed for warrior traits and establish warrior ethics as well. However, it still all comes down to food, and food is what will cause conflict between the player society and the roving packs of brutal humanoids.

Something to note about an organized group of hunter-gatherer humanoids is that they need really large amounts of land to support themselves. A realistic figure for human hunter-gatherers is no more than 2 per square mile, or else you run into environmental degradation problems. Obviously, having to run a mile to encounter 2 humanoids makes for a very dull game, and requires a gigantic landmass if you have 1000 player characters all running after them simultaneously. To some extent, you can make up for the implications of denser populations in the wilderness through explanations like raiding the fertile human territories for food, fishing, and the like, but ultimately you *should* have an accelerated food chain. Superwheat may not be the only hyperefficient crop available, and you could say that the humanoids are omnivorous, taking a good deal of sustenance from high-yield vegetation which is unpalatable to humans like swamp weeds, mosses, lichens, insects, grubs, etc. In turn, these nonhuman food sources can also support a larger number of edible herbivores, who can in turn support more carnivores and omnivores per square mile. It may require a bit of black boxing to bring a reasonable ecology up to the point where it becomes fun for players.

Nonhumanoids comprises monsters that are more akin to animals, like giant spiders, serpents, stirges, etc. In order to keep these believable, you obviously don't need a high degree of societal understanding, but the ecology does have to make sense. One forest with nothing but carnivorous wolf-things is not a viable situation. Dangerous carnivorous creatures cannot congregate successfully in small areas (unless the carnivores themselves are very small compared to their prey). They require a certain number of herbivores to harvest, while leaving enough herbivores to replenish the stock. The herbivores in turn feed on plants, including plants that are not normally edible by humans. Omnivores can exist in slightly greater numbers with the same supporting herbivore population, but their numbers will still be a tiny fraction of all the animal life in the area. Once again, you can

accelerate the food chain to allow for more food sources for nonhuman monsters, just as you do for humanoids.

Fantastic creatures do not have to follow the rules of reality. These are the undead, dragons, daemons, miscellaneous energy beings, and what have you. It still behooves the world builder to figure out why these creatures are where they are, and what resources they might require. A Tolkienesque dragon is a *gigantic* carnivore, and a flying one to boot, increasing its calrie requirements. Logically, one decent-sized dragon would strip an area of all animals and people very quickly, then move on to the next area, which is a good reason to try to kill them, but it disallows the concept of the dragon hoard (which is fine if you want to go that route). All fantastic creatures are black boxes by default, and as such the designer can apply black box logic to them. A dragon is indeed huge and hungry, but maybe it has a 20-year sleep cycle unless prematurely awoken, and when it is awake it *does* eat everything it can before going back to sleep. Vampiric undead may also have long periods of torpor, reducing energy requirements, and have "extra-dimensional" sustenance as well, but they need to hang on the fringes of civilization so they can occasionally drink blood, which contains some element they have a deficiency in. A daemon may not be a native inhabitant of the world, appearing only when summoned or due to "dimensional rift/convergence," and they are very unhappy whenever this happens. As long as you even make an attempt to apply logic to these patently illogical creatures, it will be appreciated by the discerning player.

4.6 Sample Society Outline Based on Food

Let's say we want to build a small playing area in a fantasy/medieval setting. We have some basic assumptions we want to start with, based on the preceding sections:

The society is of a typical pre-industrial early steel type, relying on labor for cultivation

The society uses horses for draft, transport and war

Humans are a powerful minority, and are under constant threat of raids by humanoids

There is relative equality between the sexes, and women can perform traditionally male roles

Magic is a known technology, but not earth-shakingly powerful or common

From these basic axioms, we can make some immediate assumptions about the society. They subsist largely on wheat or something like wheat, to encourage the domestication and use of horses. However, they need to have had sufficient leisure time to develop magic, and don't have a huge population to contribute to this, so their food gathering has to be more efficient than the historical norm. Food production is also assisted by the fact that peasant women work the fields alongside the men. Because they are under constant threat of incursion from humanoids, it behooves them to keep their zone of control as small as they can, reducing the availability of farmland, and requiring even more efficient food technology.

This leads us to some other conclusions:

The primary crop of the society is a strain of efficient wheat that requires less acreage per bushel of yield

Magic probably started as a means of increasing food production, and is therefore somewhat systemized so the harvest doesn't hinge on whether or not an appropriate wild talent happens to manifest itself in an "inborn" mage

The more equitable division of labor between men and women means that hedge magic is also used to assist in childbirth and growing to adulthood without mishap, stabilizing the population without dedicating all available women to reproduction

Because of the importance of hedge magic to prevent starvation and promote safe childbirth, and the rarity of mages, magic users are particularly important, and therefore socially well-off

Since food yields are more efficient, the leisure time of the population is increased, allowing for enough "surplus" people to research things like magic

The excess population allotment also contributes to a larger standing army, a better military tradition, and the possibility of freelance adventurers (i.e. the player characters)

Because of the large military and the importance of iron in warfare, even if iron is readily available to pre-water pump mining techniques, most of it will be going into military applications

The use of horses as a military tool, combined with a strong military tradition, means that the primary weapon of infantry would be the spear in formation, and possibly the pike if lances and/or heavy horse are used heavily

Assuming the humanoids are prototypical bronzeworking hunter/gatherer types with a high breeding rate and a rapacious need for foraging, the amount of "civilized" land needs to be considerably less than the "wilderness."

Now let's make up some numbers that apply to our superwheat and farming techniques. Assume that the intervention of the agro-mages eliminates the need for a field rotation system, so all farmland is being planted on for every harvest. This is an increase of 50% yield as compared to a 3-field system. Now assume that superwheat is exceptionally hardy and high in grain yield, say yielding 9 bushels per acre per harvest as opposed to normal wheat, which yields 8 bushels. This is a cumulative 12.5% increase. Therefore, our square mile of superwheat agriculture will have an annual yield 170% as great as a standard wheat field. It may take extra people to harvest this much grain, so let's say the field requires about 140% the manpower of a standard wheat field. Furthermore, because the field is being worked by women, the amount of grain required to feed non-producing dependent peasants is reduced as well, say from 3 dependents per farmer to 2. This can get complex, so to simplify the issue we just fudge and say the increased working peasant population translates into a surplus bonus of 5%, taking into account the fact that women will still be taking time off to bear children, and the increased need for food (and availability of it in the field) while they are pregnant.

Thus, one square mile of superwheat requires about 90 peasant farmers, who produce a staggering 27% surplus, or enough to support roughly 24 nonfarmers. This is a fantastic advantage, almost on the level of corn production, but it allows for advanced horse domestication.

So now let's figure out how many of these nonfarmers we will need to establish all the trades and practices we want. We can fudge the mundane professions a bit (merchant, village blacksmith, farrier, etc.), but we want to have a reasonable figure that allows for the study of a systemized magical practice, which is crucial for food production. Let's assume that our system is aimed at a mage percentage of player character adventurers of about 10%. The percentage of mages in the overall PC/NPC population of non-peasants will be considerably smaller. If the standing army and levies combines comprises 10% of your total population, and you figure mages on the whole are about 1/4 as likely to show up in the overall population as they do as player characters, then your total number of mages is about 1/4 of 1% of your populace. Figure that you need roughly 5 NPC mages as instructors who maintain the tradition, and about 20 NPC working student-mages who travel around performing civic duties such as lie detection, criminal tracking, healing, and most importantly crop control. With a base figure of only 25 mages, your overall working population must therefore be no less than 10,000. Increase this to about 12,000 to allow for the large number of adventurers that will

be running around, and multiply the peasants by 3 to reflect dependents. This is a very large city-state for this level of technology, but thanks to superwheat, it only requires about 110 square miles of arable farmland. This would be a circle of nothing but farmland in a radius of 6 miles from the capitol, but figure that you need a certain amount of living, industrial, grazing, and forested space... the holdings could more logically be said to extend for up to about 10 miles from the city center, with markets placed in strategic areas to facilitate food distribution and trade. The extra people who are freed from farming can increase the size of the dedicated standing army, but more people will want to use their leisure time for other pursuits, so let's say the army comprises about 30% of the nonfarmer populace.

So now we know the following about the makeup of our theoretical fantasy kingdom:

- Population 31,800
- Working peasant population 9900
- Nonworking peasant population 19800
- Non-peasant population 2100
- Average distance from border to border approx. 20 miles
- NPC mages about 25
- Standing army 630
- Possible levies 700

This is a manageable area for the army and militia to cover and defend, assuming all your enemies and rival city-states follow these rules. However, the numbers still seem pretty small to the 20th-century mind. If you feel the need to get ridiculous with your population assessments, allow the agricultural mages to *double* the food yield with magical soil refreshment, allowing for two harvests per year. Figure this increases the required workers per acre by about 50% due to the additional toil, and keep the size of the holding the same (110 square miles of farmland). One square mile of superwheat now requires 135 peasants, with an amazing 62% surplus. The massive number of non-peasants will primarily want to better their lot through mercantilism, study, or government (and extra government is most certainly required with this population density), so figure 20% of nonfarmers are enlisted in the standing army. We now extrapolate the following figures:

- Population 53,700
- Working peasant population 14,850
- Nonworking peasant population 29,700
- Non-peasant population 9150
- Average distance from border to border approx. 20 miles
- NPC mages about 50
- Standing army 1830
- Possible levies 1040

This seems about right for our high fantasy setting, and we only had to use a minimum of black box assumptions to get there. However, our population density is now up to about 170 per square mile on average. Middle ages England had a counted population of only 30 per square mile, but early census takers did not count dependents, i.e. a farming family of 4 with one working farmer counted as one person. Still, 170 per square mile is considerably high for this level of civil engineering, and the area of greatest density (the capitol city) is going to be ridden with pestilence. Black boxes in the form of clerical healings and disease control can help control the sense of filth that a good and accurate middle ages city should convey, but don't go crazy. Disease was an important form of population control, and should not be ignored in the background of your campaign world.

5 Economy

5.1 Reasonable Cash Economy

Every game, I swear, EVERY GAME that allows players to make money in a multiplayer environment somehow gets its economy completely blown out of proportion. UO was flooded with gold from unfettered mule tailor salesmen even before the advent of duping gold and GM's spawning castle deeds for profit. The Asheron's Call pyreal is worth slightly less than a German mark circa 1923. Even the apparently ultra-stingy EQ cash flow was made meaningless eventually just through relentless repeating cash quests and stupid economic decisions that created overnight millionaires.

One question that this hyperinflation begs to pose is: *who is minting all of this money?*

The traditional unit of currency in all of the big three, and indeed in most fantasy games of all types, is the precious metal coin. In UO it's the gold piece. In Asheron's Call, the pyreal. In Everquest, it's the traditional D&D money system of a mixed assortment of metal coins. All of this money can be considered real, as it is represented by actual coins and is assumed to have intrinsic value. Even the trade notes of Asheron's Call are not paper money in the sense that modern U.S. currency is paper money, since a trade note can be redeemed immediately by any sufficiently well-off merchant for its value in coin, and the note itself isn't even usable as a means to directly purchase goods and services. This means that someone has found a sufficient quantity of the metal required to make these coins, mined it, smelted it, and minted it into a universally recognizable unit of trade. Barring duplication bugs and crooked administrators, the amount of this real money circulating around in any MMORPG seems to indicate that there are mountains of precious metals right near the surface (making it minable/pannable with pre-water pump technology).

Even leaving aside realism for a second, the effects of a hyperinflux of cash into the game economy are obvious, and have been demonstrated time and time again. Money becomes worthless, king's ransoms are given to newbies as soon as they enter the system (making them, in effect, not newbies anymore), and while the price of many standard goods and services doesn't increase for some strange reason, you wind up with newly implemented items like hair dyes having price tags more appropriate to an earldom. Items which were envisioned as being status symbols, like the top quality of store-bought plate mail, are now mere afterthoughts, and if the price of plate is not increased through inflation, you either have a situation where there are NO goods of any kind for sale anymore as they have all been bought out by the player-tycoons, or else you have to give up on the idea of realistic manufacturing and allow everyone to buy unlimited plate, forcing the assumption that somewhere below the earth there are about 8 million hapless artisans churning the stuff out on a daily basis.

Just to twist the economic dagger in the backs of developers, the "closed economy" that Ultima Online was originally envisioned with does not work at all. In a closed economy, the world has a limited number of resources of all types, and that's that. Iron turned into a helmet is gone from the ground forever, only returning when the helmet is destroyed, presumably broken down into ore by some sort of super-bacteria. The closed economy has a lot of theoretical advantages, but the fact that it means there are limited fixed resources screws 99% of the playing population, as the first guys out of the gate in final will monopolize these resources, filling their houses with stacks and stacks of useless weapons and other goods, in some mistaken belief that hoarding is a way to "win." The guys who come in after them have no chance.

Operating on the assumption that a closed economy has no chance of success, the challenge then becomes a way to manage an open economy (where materials appear out of thin air on a regular basis) while avoiding hyperinflation. The only way to do this successfully is to make sure there are enough unavoidable money sinks in the game to continually drain resources away from the players, while trying to maintain a certain level of "fun" for the inevitably greedy subscriber. This section is primarily concerned with cash money, so we'll leave the question of item management for later. (See "[Item Decay](#).")

Various money sinks have been implemented after the fact (hyperinflation) in all of the big three MMORPG's, but they never work. The reason for this is that in order to remain unobtrusive, the cash sinks are always optional, and if they are useless sinks (like buying a meaningless title), players won't go for it. At the other end is offering sufficiently big carrots for the players to pay out for, which lends itself to game mechanic inflation. Pay lots of gold for a superweapon that is better than anything in the game, for instance. This does nothing to stop the influx of huge amounts of money, and only contributes to an inevitable breaking of the game. Note that this and other "solutions" for inflation are not limited to gold disposal concerns. The shard and key economy of Asheron's Call, having supplanted the hopelessly broken coin economy, is riddled with this sort of nonsense.

Requiring players to pay for advancement or education isn't a bad idea in itself, but it doesn't halt the problem of hyperinflation. If you require players to pay tuition of 1000 gold to the Wizarding College to learn the deeper mysteries of theurgy, this is a pretty good idea and contributes to cash draining, but if 20% of the world is made up of multimillionaire hoarders, all this means is that after a while it becomes a nonfactor to anyone who can ask the rich guys for a thousand gold.

There are really only three ways to effectively control the flow of cash to the player in an automated persistent world:

- Reasonable financial rewards from hunting other creatures and robbing them
- Expensive component requirements for professional equipment
- Taxes

Controlling the rewards for hunting the enemy is important in many respects. With a little forethought, it can be done. The amount of cash one finds on a dead enemy is easily limited by logic, especially if like most minted coins, the minted coins of your civilization center were made by the guy in charge so he could immortalize himself on the face of a piece of currency. The local nomadic tribe of humanoids wouldn't have much use for these things, except maybe if they like shiny objects. They aren't going to be buying much from the town market with them, after all. The big thing to control is the reward to players for selling off the gear of their murdered opponents for profit, something which has always been way too generous to the looter.

First, consider the fact that most of the time a guy spent after a historical battle was fixing his stuff. The spoils of war in the form of armor, weapons, and shields off corpses are not going to be in mint condition. Most of it will be flat-out useless, and what might have some value is going to require a lot of work to fix up if someone wants to bother doing it. Then again, the local tribe of goblins might be barely out of the neolithic age, especially if they have a nomadic raiding existence that doesn't contribute to high level manufacturing. Not much of a market for stone axes and bronze knives in an iron age town. Also consider that some traditional high ticket items like plate suits are a big pain to take off their dead owners, especially with a spear stuck through them, and once you get it off them, you can't just fix it up and put it on... it's not possible to fit these things generically. If you're really down and out, maybe you can sell it to the smith as scrap, or to an eccentric collector or museum if you are very lucky. In cases where equipment of the fallen might be resold at an open market, a man might get a reputation as a vulture of the battlefield, resulting in worse reactions from people who know about his corpse-stripping activities. For the most part, though, battlefield spoils were typically vultured by the local peasants after a battle in the hopes that they might be able to sell it off to an itinerant adventurer or bandit for a few pennies to supplement their poverty-stricken existence.

Expensive component costs in MMORPG's are most often associated with mages, who have to shell out every day for bizarre herbs and powders to perform magical feats. However, you can easily expand this into other professions through the simple and logical system of item decay. A fighter who routinely goes out to battle in a suit of plate and a round shield should have to pay some rather exorbitant upkeep costs to keep that gear in order. Archers need arrows, of course, and possibly other sundries like restringing, laquers, what have you. There should always be a way for players to not have to pay these upkeep costs, especially if they are newbies or self-proclaimed hermits with few possessions, but the sort of things these people will be using (hide armors, spears, etc.) should be of

the sort that one could reasonably repair himself given sufficient skill and resourcefulness, and should not expand into equipment like metallic armors that require a considerable manufacturing base to produce.

Taxes are dealt with in the following section.

5.2 Taxes

Taxation is an anathema to game designers, who react to the idea of taxes the way that most modern people do: with the idea that it is "not fun." However, regular taxation in the medieval sense is the perfect solution to pack ratting and hoarding, and a great way to deal with hyperinflation. The feudal system of taxation was not based on income, as it is in modern America. Instead, a tax collector (or the sheriff) comes out to your house, or into your boarding room, with a couple of legbreakers, estimates the value of all your stuff, and assesses a tax based on your total estimated net worth. This means that if you have the prototypical house full of useless but pricey junk, you will pay a significant tax. If you don't have the cash to cover it, he grabs some of your stuff instead (usually stuff of a higher value than what you owe). Assuming you have an offline activity system, this property tax is collected at regular intervals regardless of your online status, getting around the old standby system of "mules that hold all your crap for you." One might always try to smuggle or otherwise conceal one's possessions, but then they run the risk of having it *all* confiscated (if hidden within the protectorate of the local nobility) or having it stolen from you (if outside the protectorate). One might also attack the tax collector if this is feasible, but then he is subject to strict penalties under the justice system (see "[Justice Systems for Persistent Worlds](#)").

Taxes can be applied in other ways to control the massive income potential of someone who plays the game for coin 24/7. Entering a typical medieval town without special disposition usually entailed a head tax for each person and each animal. Entering town with a whole bunch of coin and other goods usually entailed an additional tax on the stuff you were introducing into the economy. Different city-states generally used different systems of coin, and so your stack of crowns from Aramica needs to be changed for doubloons in Portsmouth if you want to buy anything, usually at usurious rates. (Historically, it was often illegal to even be in possession of external currencies, and this was subject to heavy fines.) Once again, one can try to smuggle goods between towns, with the risk of repercussions appropriate to smuggling (confiscation at the very least, and possibly fines and/or jailing if the material is considered a controlled substance).

Taxes can be used as a balancing device to more effectively apply the "[zero sum rule](#)" to differing city-states. A realistically conceived community's services are based directly on how much food it can produce, and how many people are there. A small village may have very low taxes of its own, but most of its populace is out in the fields harvesting food, so there aren't many services available, maybe a general store with limited inventory, an inn that doubles as a tavern, and a stable attached to the inn. As the size of the community grows, you have more "excess people" who are not required to be in the fields, and are therefore able to open more specialized and better shops, and practice more trades. You also begin to run into problems like sanitation, crime and protection from raiders, and you need city services to provide for sewers, aldermen, and a militia, ergo you need higher taxes. By the time you have a city capable of supporting things like a weapons dojo and a university of magical arts, your population is large enough to require even more services, and a bunch of officials to make sure they run properly. If a player really feels he needs to be in Avalon because they have great shops and a school of thaumaturgy, his cost of living is going to be high, including his taxes. (He can always try to camp outside the city limits and come in for classes, but he's still paying a head tax for immigration, and will be susceptible to bandits.)

Take the example of early Asheron's Call, and assume there is a taxation system in each town. Each town is assumed to be producing enough food, goods and services to support its intrinsic population and some others, namely adventurers. Arwic becomes insanely popular because it has the best prices for almost everything an adventurer wants, and has great proximity to a number of highly

desirable locations. Suddenly the town's population is huge, swelled by adventurers, their servants (mules), and the people who hang on the edges of the adventurers to profit from them, or even just to be near them. Suddenly you don't have enough food for everyone, and the city is filthy! Food must be imported from other areas, city employees need to be hired to clean up after the adventurers and their caravans, etc. Taxes must go up in this situation. If the population stays excessively high long enough (a very long time), the city may grow to accommodate its new needs with permanent sewers, more farmland, etc. Taxes will then not need to be so dramatic, but they will still be significantly higher than when Arwic was a one-horse town.

Taxes can also be used by a creative enough content designer as a plot device. A change in the rate of taxation can be seen as an indicator that things are happening. For example, a town may need to quickly raise troops to deal with an imminent invasion from a neighboring kingdom, and taxes soar to cover it. Player characters can pay the new taxes, or possibly get some relief by volunteering to go fight the invaders. Driving off the invaders may help to reduce the emergency tax rates. Another example might be one in which a crooked monarch decides he wants to squeeze the city so he can buy solid gold bidets for his bathroom. Taxes go up with no justification. If the players figure out that the taxation is rooted in a corrupt bureaucracy, can they incite and lead a successful revolt?

One more thing about taxation systems, or any game system that threatens to become too complicated and clunky for the players: it must be streamlined. This means that when you make a transaction that requires a commission or tax, it is automatically deducted from the monies exchanged without having to make a special trip to the collector. When the sheriff shows up at your house to collect taxes and you happen to be there, you need to be able to just hit a button that says, "Pay," or else attack or flee. If you don't want to be bothered with an independent tax collector AI, just handle taxes automatically on login, based on the amount of time since the last tax payment. You should never force a player to fill out a tax form when you could just have him press a button.

5.3 Player to Player Economy/Vendors

One of the most important parts of creating a game which is immersive is providing many ways for players to interact with each other besides the tired "hunt in groups" idea. Players selling and trading items to each other is a fantastic avenue of interaction, if it's not horribly annoying. Because players are on- and off-line at different times, the process of direct barter becomes even more frustrating than usual, and often it's practically impossible. Therefore, there needs to be an in-game system of shops and shopkeepers that deal specifically in player-created goods. Right now, Ultima Online has the only player vendor system in MMORPG's, and for many UO players of a mercantile bent, it's the only reason to play.

A proper player vendor system, ideally, has to have a number of characteristics to make it useful.

Ease of interface

Accessibility to artisan players of varying means

Accessibility to prospective shoppers

Ability to buy goods as well as sell them, as determined by the owning player

Maintenance fees and commissions to contribute to cash drain from the player economy

Ease of interface applies both to the shopkeeper player and to the shopper. The simple UO vendor is decent for this: the owner drops items into the vendor's bag o' stuff, possibly in subcontainers. The player can then label it as "unbuyable", like the player's own emergency gear pack or his house keys or a subcontainer, or as "buyable" with a price tag and maybe a little description of what exactly is for

sale here. The shopper can now look through the bag, single clicking on individual items to check its label and price, and can purchase the items by a text trigger ("vendor buy") and a targeting cursor. The item is selected, the player's assets are checked, and if he has enough money, the money is transferred from the purchaser to the vendor, and the item moves to the buyer's pack. The vendor then holds onto this money until the owner comes by and collects it, draining a little bit off every day as salary.

A 3D interface like that of Asheron's Call and Everquest lends itself well to popup shopping menus for the buyer, much like dealing with any NPC vendor. The owner's menu may be more complex, which is fine as long as it doesn't become an un navigable kludge of commands and submenus.

Accessibility to artisan players who wish to sell their stuff to other players opens up a new area of possibility for game world systems. Employing a shopkeeper is generally considered to be an act open to relatively well-off merchants; peasants still hawk their corn themselves in the farmer's market. The expense of hiring a vendor employee can therefore be somewhat high, keeping the vendor count at a reasonable level so as to reduce strain on the server. However, there is also the possibility of the *consignment shop*, or pawn shop, to players who lack the means or the motive to maintain their own little stall on Market street. A consignment vendor NPC would be willing to hawk limited quantities (meaning usually 1-2 at a time) of player loot to the public who is just dying to get their hands on another set of bloody, smelly used chainmail with a big spear hole through the middle of it. The consignment vendor can sell the item at whatever price the player wants for it within reason, which provides an interesting game of market analysis as the consigning player checks out what his neighbors are asking for bloody, smelly, used chainmail with a spear hole so he doesn't price himself out of the market. Generally, a pawn shop guy will not deal in high-ticket items. Within about a week or so, the player checks back in with the pawnbroker, collects cash (minus a big commission) if the item was sold, else taking the item back, or maybe offering to sell it to the broker for an extremely low price... pawnbrokers are always looking for cheap inventory to sell to black market speculators and such. If the player leaves the item with the pawnbroker for too long and it doesn't sell, the broker just keeps it for the trouble of holding such an unwanted piece of trash, taking it out of the item economy. The facts that the broker will not deal with high value items and will only take one or two at a time is an intentional annoyance to players, as are his higher-than-standard commissions, encouraging them to either not loot so much or go through the motions to get their own shop.

Accessibility to prospective shoppers is of obvious importance to the merchant player. Location, location, location. In Ultima Online, this made certain prime areas with lots of foot traffic extremely valuable to player merchants looking for a spot to park their vendors. However, since the placement of vendors in Ultima Online is directly tied to house ownership (vendors need to be attached to a house), one is just as likely to find the vendor you want outside a dungeon entrance, in the middle of a godforsaken swamp, or in a notoriously dangerous PK hunting grounds. The out-of-the-way shop is a good idea for number of reasons, say travellers down on their luck or for the business of people unable to enter town (i.e. murderers), but in real life, hawkers tended to congregate in market squares or certain areas of town where everyone could go and browse. This was especially important in a world without convenient mass transit and broadcast advertising. Therefore, in a realistically designed middle ages-type game, a vendor contract would usually be entered to get the services of a guy who stands around Market Street along with all the other vendors. As more and more vendors are hired, "Market Street" starts to expand, is eventually cut off by city regulations, and becomes very crowded. If the demand for vendors in this area continues to rise (as it would in an MMORPG filled with starry-eyed entrepreneurs), the vendors form a guild and start charging higher prices to take advantage of the supply-demand ratio. Eventually this takes care of itself, and vendors reach a price range which is more or less consistent with the demand for their services, driving would-be merchants who don't realize a profit through vending into another line of business, creating a new opening.

Another option for merchant players is the self-contained shop. Far more high-falutin' than hiring a guy to sell snake oil to people on Market Street, a shop becomes possible with building construction and/or ownership. A shop is naturally more expensive to maintain, as now you have to pay for the land, the building, and its maintenance in addition to the shopkeep, but might allow the player to sell bulkier items, and more of them, than one guy on Market Street could haul around in his carpetbag.

It's also a landmark, and a mark of prestige for the owning player, who can then tell the story of how he worked his way up from a street urchin to apprentice bowyer to the proprietor of the most popular weapons shop in town.

Ability to buy goods is not currently implemented in the UO vendor system. Allowing a player vendor to purchase materials from the populace at large opens up new avenues of moneymaking for beginning craftsmen and materials harvesters (i.e. lumberjacks, miners, farmers, and the like) who aren't well-off enough to have a shop of their own. In order to do this, the controlling player needs to be able to divide the funds held by his employee into three categories:

- Salary
- Profit
- Discretionary Funds

"Salary" is the amount required to maintain the employee. "Profit" is the amount of cash over and above this that the player can collect from the vendor after successful sales. "Discretionary funds" are funds that the vendor can use to purchase items from players, based on a list set by the player. The easiest way to deal with "salary" is to have the player hire the shopkeep for a certain amount of time, paid for up front. This contract should be no longer than, say, two real world months or so, subject to renewal. The remaining moneys, "profit" and "discretionary," can be controlled with a slider bar controlled by the player. The position of the marker on the slider bar represents either a percentage of all available monies that can be used to buy goods, or a threshold below which the vendor may not purchase additional goods. The items to be purchased are selected from a listbox in the vendor menu, along with an amount and a buying price. Players who have what the vendor is looking for (say, bars of iron for metalworking) can make an offer to the shopkeeper like they would to any NPC vendor, and the shopkeeper will buy the goods from the player, to a maximum determined by the amount the owning player and the amount of discretionary money left in the shopkeep's reserve, and possibly limited by encumbrance factors (more on this later). When the player comes back to check up on the vendor, he can take the iron (or whatever) and do what he likes with it, freeing up space and mass for the vendor. If a commission is earned by the vendor for purchasing the goods, this figures into the slider bar calculations as well.

An interesting possibility in a system where player-run merchants have the ability to buy goods at set prices is direct trade *between* player merchants. Say Andy's merchant is looking for large quantities of ginseng root and is willing to pay 4 crowns per pound, and Deborah's merchant happens to be selling ginseng at 3 crowns per pound, and they happen to be operating in the same general area. After a while (periodically checked instead of constantly to reduce lag from constant checks), the two merchant may become aware of this, and a deal is struck between them directly. Deb's merchant sells her ginseng at 3 crowns per pound, and Andy's merchant pays 4 per pound for them. The excess cash can be considered to be skimmed off the top in a player vendor kickback scheme in addition to whatever commissions they may earn. This has the advantage of making things simpler for the players involved, but a designer may wish to disallow this sort of trade, as it removes a possible avenue of profit for particularly impoverished players who may want to make some money by running the ginseng themselves.

Maintenance fees and commissions include things like salary, handling charges, sales commissions, and other sundry concerns for the shopkeeper (like a guy to watch for pickpockets, maybe). These provide a good source of cash draining to prevent flooding in an open-ended economy, and can be considered a trade tax levied on society's theoretically wealthiest members, i.e. the merchants. A salary is a fixed amount paid to the shopkeeper, and can be influenced by factors like the demand for vendors in a limited vendor per city system, the status of the vendor (i.e. hawker on the street versus a true shopkeep), and *expertise*. "Expertise" reflects the knowledge of the vendor to sell certain types of goods. For example, a guy working in Bob's House of Polearms, which sells polearms and also buys raw iron from the locals for smithing, has to be conversant in the general fields of melee weaponry and metallurgy. A guy working in Alicia's Everything Shop, which deals in a wide variety of goods including

arms, armor, bows, magical reagents, clothing, leather goods, etc., has to have a broader knowledge and is therefore worth more money. His salary should be a little higher for his expertise.

Commissions can be earned for any transaction involving the vendor. This is probably best handled as a flat percentage of the amount of the transaction. A guy working for Robbie's House of Incredibly Powerful and Fantastically Expensive Magic Weapons should earn more in commissions than the guy working at Harold's Animal Feed Store, unless animal feed is an amazingly high-volume business. Commissions can also subsume any trade taxes the local government levies on marketplace transactions.

Using this model, we see that there are three basic classes of vendors available to players who want to buy or sell to other players:

The pawnbroker, a guy who works in his own shop and sells stuff for the player in exchange for a commission. He doesn't deal in high priced items, won't do volume business with a player, and won't keep his eyes open for things the player is looking for.

The street hawker, a guy working in the market area of the city for one player, who sells stuff for the player. He is limited in inventory to the items that one (or maybe several) man can haul around. He will probably not be willing to look for items for the player to buy, although there is always the possibility of a special version of street hawker who does *only* this.

The shopkeeper, a guy working in the player's store. He has the advantage of much greater storage, status, etc., and costs more to reflect this. He has enough storage space and (presumably) funding to buy materials for the employer at his request.

There is one more possibility that players would want that isn't adequately covered: the wilderness merchant. This is the guy who sells and buys from players away from the town market, either because it's more convenient for the owning player, because it's convenient for adventurers who are away from town, or because he wishes to avoid taxes and other inconveniences in town. Such merchants are unrealistic unless they are part of a small trading post off the beaten track, but they do add interest to the game. These can be considered "shopkeepers," the most expensive class of player vendor. There may also be a pawn broker in a remote outpost, but it's more likely that the outlet for salvaged goods away from town will be a cranky and shrewd NPC merchant who buys at very low prices and sells very high.

5.4 Keeping Magic Items Uncommon

It's inevitable that as soon as players figure out that monster X routinely drops treasure type Y, they will all be gunning for monster type X. If the system has loopholes, they will find a way to kill monster X at a minimum of risk and effort expended. Pretty soon your world is filled to the brim with Broadwords of Nuclear Destruction. The consequences of over-availability of magical items in a game world are pretty obvious, but in case they aren't to you, they include (short list) power inflation, twinkling, cash inflation (as the excess/lower tier items are sold off), elimination of the usefulness of player crafters, etc. It also destroys any sense of wonder one might ascribe to these devices in any reasonable work of fantasy. Elric: "Stormbringer? Bleah, it sucks; I give better stuff to newbie guildmates. Mule it."

There are three passive ways to effectively limit an overabundance of magic items in your campaign world:

- Just make less of them
- Make them go away more often
- Make most of them "limited use" items

Number one, making less of them in the first place, is obviously the most important step. This is especially important if we assume from the start that closed economies just don't work, ergo you can't just say, "There are no more than 1000 enchanted cheese slicers in the world at any given time." This is impossible for reasons outlined above, most importantly the fact that a small group of early players will hoard enchanted cheese slicers and hold a monopoly on them. Consider the amount of work it probably takes to create even a minor enchanted item like a bow (finding just the right wood, commissioning the best bowyer in the land, many mages performing ceremonial magic for long periods of time, etc.) and you can reasonably see why these things wouldn't appear on every other kobold your players run across. Magic weapons will most likely be in the hands of appropriately tough monsters, *who can and do use them against the players*. Even if a player manages to find Kutzulcrag the ogre lord who might provide them with the Flaming Warhammer of Giant Strength, Kutzulcrag is going to use it against them. This only makes sense.

Making them go away is just as important for magic items as it is for standard stuff like suits of armor, gold, and shields. If these items are unbreakable/non-droppable/unlosable, your world will fill up with them regardless of limitations you set on availability. Wear and tear would certainly factor in to this, as does loss due to death, but other, more annoying devices can be used. Magical devices are a favorite target for thieves, alone or hired for the job. NPC nobles and collectors might pay high prices for them, which becomes important if your cash economy is functioning properly (i.e. the money really makes a difference). If things get too ridiculous, black boxes from pen and paper games can be used, like the ethereal daemon who feeds on such items, and will certainly be attracted to a player decked out in them. Attaching a sense of danger to the ownership of magic items also helps insure that they are being carried by characters of a power level appropriate to their possession, instead of the newbie decked out in twink gear.

Limited use items applies primarily to things like alchemical potions and the like. In a standard pen and paper fantasy campaign, these are far and away the most common type of magical item. Potions of healing, dust of disappearance, maybe a whistle that summons creatures to fight for you 3 times before it breaks... as long as these are the predominant forms of magical loot players can get, their built-in disposability takes care of item inflation by itself (although you still need to be careful, especially if players are fabricating these things).

Of course, in a world where magic items are rightfully limited in availability, you need to provide players with alternatives to beef up their arsenal to a reasonable degree. This is done through other economic measures, primarily control of the cash economy to avoid hyperinflation (so a suit of plate is something special), and giving player crafters the ability to make top-quality gear... not supergear, just at the high end of the reality scale.

5.5 Item Decay

Any open-ended virtual economy that does not provide for the decay and loss of items will *always* overflow. This is also related to uncontrolled cash inflation, since a society of millionaires has no incentive to try and sell off their collections of expensive crap if they don't have to pay taxes on them. Insufficient item decay equals powerful item inflation equals player power inflation, and you eventually have a situation where most of your content becomes a joke, as your entire playerbase is outfitted in top of the line stuff handed down by hoarding patrons. Naturally, they'll *still* hoard the stuff they don't even use, taxing your server and your patience.

The sort of item decay people think (and whine) about most is the decay of weapons, armor, and other battle gear. Realism provides us with yet another good reference. The day after a battle, a soldier who had survived more or less in one piece was spending most of the next day fixing his stuff. Battles are hard on equipment. It only stands to reason that armor and weapons have limited lifespans, and you can only grind down a sword blade (the only way to keep its edge) so many times before you have a piece of wire with a handle. Weapons with wooden handles are cheap, but they get snapped more frequently than all-metal ones, and the best way to keep your spear functional is to sharpen the head

again (if there's enough metal there) and fit it onto a new shaft. This, of course, requires a crafting model robust enough to allow for multiple components (get the shaft from a woodworker and a spearhead from the smith).

Shields are a special case. Shields are *always* mishandled in fantasy RPG's, unless you happen to playing GURPS with every little impossible to find variant rule in the book. Shields were considered disposable items. A typical shield was made primarily of layered wood, edged with metal to absorb chops to its sides, and *maybe* reinforced with bands, though this made them cumbersome. The proper use of a shield was as an angled deflector to shove kinetic energy to the side, or (if you were feeling lucky) you might try to catch an incoming swing on the metal bands to catch or break an enemy's weapon. Regardless, you can only punish a shield for so long, and they were generally discarded after one battle. The all-metal shield model so popular in fantasy imagery would be too damn heavy to lug around on the field, let alone carried on a mountain trek. A buckler might be made primarily of metal, but bucklers are exceptionally small and require great skill to use effectively, and still aren't indestructible.

In any case, it is to the advantage of the game world to allow for the destruction and loss of *anything*. Items can be assigned hit points and similar ratings, and (if your engine really rocks) variable damage types. A fireball might recrystallize a piece of steel, but say goodbye to that apron. Things may be repairable to a degree, but every time you patch something up, you weaken it. Eventually, you need to outfit yourself again, discarding your ruined gear, and helping the economy along in the process.

6 Weapons

6.1 Diversity of Arms and Armor

Weapons and armor are technological developments, no different from computers and software. Like computers and software, they tend to get developed based on an "arms race" sort of mentality. A new CPU comes out for the public? There will be games developed capable of slowing down the new powerhouse to an unplayable crawl, creating a demand for a better CPU, etc. etc. The development of weapons and armor was the same. If no one had developed axes and falchions capable of chopping through leather and brigandine easily, there would have been no need to develop cut-resistant chain. Fully articulated plate, and later fluted plate, was a response to crossbow bolts and the like; the arbalestier (crossbowman) itself was an improvement on the longbow archer, and would have replaced longbowmen entirely by the 15th century had the mechanisms of the crossbow not been so expensive to manufacture.

In addition, the lack of effective communications technology prior to the 19th century meant that technological developments tended to stay regional. The mastery of swordmaking in feudal Japan stayed right where it was, while the rest of the world putted along with their low-grade broadswords or, if they were lucky, a weapon manufactured by the master smiths of Toledo. The Turkish-Mongol composite bow was never adopted into European technology, despite the fact that Subedei had destroyed about 80,000 Polish, Hungarian, and other troops, considered to be the best in the area, with a 20,000 man diversionary force armed with these bows, in a matter of days. Neither does one see exotic weapons like the whip sword, patar, bagh nakh, han-kyu, etc., in the world of dark ages combat... that is, until fantasy gaming.

What does this mean for the the world of fantasy gaming? In a typical swords and sorcery sort of milieu, weapons tables are filled to the brim with weapons of every possible description and era, and from cultures which may or not have been appropriate. There are completely ridiculous inclusions, such as the availability of rejected weapons like the fauchard and the lucern hammer in a world that had developed the halberd. Also included are weapons which may look cool and bizarre, but have absolutely no place on the battlefield, like the bagh nakh, kryss, etc. Armor should technically be available based on the armor-defeating potential of weapons available at the time, yet we find a mixture of every possible form of personal protection, regardless of the fact that the "high end" weapons on the weapons tables are capable of defeating most armor types with ease. There are exceptions, like buff coats for archers who are expected to die anyway in close combat, and maille and brigandine taken from the corpses of soldiers unfortunate enough to be wearing it when they were mercilessly killed, but a "trip to the armor store" should yield little more than the highest level of affordable personal protection available in that time and place, with a few lower end items for the cost-conscious killer. There is simply no demand for anything else amongst the "elite" social class of "adventurers." (This becomes apparent in games like D&D, where by second level all fighter types have bought plate mail.)

However, somebody put them in there, and so instead of repairing the damage, a designer will "tweak" weapons with arbitrary and ridiculous values for damage, speed, etc. This leads to more inaccurate game interpretations of weapons, as one game relies primarily on the absurd tables and stats of its predecessors as source material. Designers and developers, having implemented stupid ideas like "feathered Aztec armor" and "really little knife" in a world of articulated plate and estocs, want to give players a reason for wanting to use these inferior armor types, hence dumb ideas implemented to make it worthwhile.

As far as inferior classes of armor, the only reason an "adventurer" would have to use them include economic concerns (cannot afford to have a fitted suit of plate made for them), or dire straits (his plate set was destroyed or stolen, and that suit of brigandine can be thrown on if it's approximately the right size). In the case of inferior or bizarre weapons, the *only* reason a wealthy character would have to use them would be economic or availability concerns, and in *no* case would a stupid weapon like a

bagh nakh be carried onto the battlefield unless the player is attempting to roleplay a suicidal religious fanatic who fully expects to die horribly.

6.2 Ceremonial Weapons (Shadwolf)

Many cultures developed weapons to be used in certain rituals. These weapons were designed to look dramatic and scary. They were seldom designed with an eye to any actual functionality. Battlefield weapons, on the other hand, were designed to be as cheap and functional as possible. Thus, if a weapon looks really cool, it probably falls into the former category. Bagh Nakh, Katars, Cestus, Kriss, Hunga Munga, two headed axes, flamboyant blades and several other weapons fall into this category. These weapons are an exceedingly poor choice for combat. You can add to this category weapons that have been popularized only in modern mythology and were never used for any form of combat (i.e. the whip and the grappling hook). To give a better idea of how real weapons work, one of the most popular weapons in ship combat was the belaying pin, a short piece of wood with no spikes, knobs blades or other cool looking protrusions.

The big argument that can be brought up here goes something like "Yeah, but this is a fantasy campaign. It's supposed to be over the top." Well, consider this: If your character is a professional fighter, he should act like one. He should have some sense of what he is doing. The truly fearsome opponent is the one with the sharp mind. This is really what you are looking for - to be the cool guy, not the regular guy with the cool sword.

6.3 Balancing Existing Armor and Weapon Types

Okay, so let's assume that, defying all tradition in the fantasy RPG milieu, a designer has narrowed down the choices of available, *practical* weapons and armor to those that might logically co-exist on the battlefield together. Starting with weapons, let's assume that you're using middle ages Europe as your model, and have narrowed down your choice of weapons to roughly the following: dagger, falchion, shortsword, broadsword, claymore, mace, axe (the real "battle axe" which is more like a hand axe than something out of a Frazetta painting), spear, glaive (or similar simple polearm), short bow, longbow, light crossbow, and heavy crossbow. Your possible armor types include an assortment of metallic helmets, leather (not really considered battlefield-worthy, but included along with fur and padded armor to appease the impoverished), brigandine, chain, back-and-breast plate, and fully articulated plate. These choices and minor variations thereof provide one with a good variety of weapons to choose from, while at the same time making logical sense.

Now to make them have balanced appeal to potential customers, we must apply some of the zero sum balance concepts to the gamut of available gear. This seems deceptively easy to do once you keep in mind the basic ideals of balancing all members of a set against each other using factors like speed, damage over time, etc., but the process becomes more and more complex depending on how realistic (and therefore complex) your combat system is. Do you have differing effectiveness versus certain types of armor? If so, you need to apply values for a factor like "+3 effectiveness versus chain" depending on how often a player will be likely to meet an opponent wearing chain. Is one of your balancing factors the cost of the gear? You cannot even consider this as a balancing factor unless you are reasonably sure you have your economy under control. Do you have a system that efficiently compares weapon reach and entity position to give spears and polearms the advantage they should enjoy? If not, implement one, or assign defensive bonuses to these weapons as a sloppy but almost accurate compensation.

The process of balancing requires nigh-infinite testing, and the likelihood is that you still won't have it perfect. You can expedite the balancing act by adhering to 3 concepts:

Keep the "zero sum" ideal in mind at every phase of stat assignation, *especially* the initial phase

Decide on maximum values for everything (preferably on a fairly small scale) and stick with them for the life of your game, no matter what

Hide the exact math as best you can from your players, and let practical application of your formulae be the acid test for your balance

The last bit about hiding the numbers, as it applies to balance, is a double-edged idea. On the one hand, you give up the ability of sharp and objective players (all 3 of them) to give you charts and such showing why the broadsword is kicking everyone's ass, and concrete suggestions on how to change it. On the other hand, if players are unaware that an axe does 3-9 and a falchion only does 2-8 (regardless of all else, players will gravitate to the highest damage numbers), you have a higher likelihood of players actually bothering to test the falchion, giving you a better overall view of weapon performance if you are diligent enough to observe.

There are some special issues to content with when dealing with items that are without doubt at the top of the list for armor and weapon choices. Considering the varying effectiveness of the sword vs. spear vs. axe vs. whatever, the most glaring example of "historical imbalance" in the previous example is fully articulated plate vs. other armors. Full plate gives better protection than any other armor type of its day, while affording excellent freedom of movement. Assuming that we don't want to put all our balancing bets on cost (since we figure that the economy may be broken some day, for enough time for players to exploit), how can we deal with it? Our game system or engine *must* be cohesive enough to reflect the realities of pre-gunpowder economics and combat, including such overlooked factors as long-term fatigue, encumbrance as more than a green/yellow/red line, hit location and variable effect, the effects of weather (someone in full metal plate will suffer more from heat *and* cold), etc. In a relatively simple model (though still more complex than any currently marketed MMORPG model), the drawbacks of full plate may be as follows:

A suit of plate is tailored specifically for the individual who is going to wear it, and must be made for that person. It cannot be worn by his killer, for example. It must be custom-made by highly skilled smiths from precise measurements, and this takes a gigantic amount of money *and* time, up to 2 years historically. There may also be a waiting list if the technology is not commonplace, adding inconvenience and expense.

Plate is very heavy, so the system must have a complex formula to deal with loss of stamina based on the total mass of carried items, for *all* activities. Standing around all day in a suit of plate, weapons, and other gear will exhaust someone just as certainly as standing around all day holding a 120 pound stone.

Because plate is heavy, it can make it difficult to go from prone to standing positions, etc. The fact that it affords freedom of movement doesn't make it easier to do sit-ups in it. A favorite historical method for dealing with plated knights was to dismount them so they were helpless on the ground, then stab them through the eyeslits. (As a possible counterbalance to this and the above consideration, people wearing plate may be afforded more opportunities to increase in physical strength, which is realistic... there were no weight-training programs in the middle ages.)

Plate, chain, and other metal-on-metal armors make noise during movement. A man in a set of articulated plate will attract the attention of potential enemies at a greater distance than a man wearing brigandine.

A full suit of plate takes a very long time to get into, even with assistance. Even if you omit the normally obligatory squires who would help one strap in, assigning "readying periods" for complex suits of armor adds another balancing drawback for the man in a plate suit, especially if keeping it on all day contributes to fatigue.

Keeping these considerations in mind, it is more than possible to limit the choice of practical equipment in a setting to the weapons and armor that would logically be in use simultaneously, yet provide balancing factors for each choice to insure that no one choice becomes supreme. If there are other weapons and armor types included, such as ceremonial or purely gladiatorial equipment, it should be made clear to the players that these are *not* generally accepted battlefield accoutrements, and thus the referee/designer is free to assign them logical, substandard values in comparison to other weapons. A player is then still free to charge out onto the battlefield with a trident and a huge scimitar with a jagged edge, but he should feel no surprise when some grunt with a spear impales him through the heart before he can react.

6.4 Battlefield vs. Personal Combat Weapons (Shadwolf)

One of the considerations of fantasy warfare has to be the specific role of weapons. Some weapons were designed to be used by the individual while others were designed for use on the battlefield. The mace, as an example was not a very effective weapon in single combat. In essence, the mace was an optimized club. As an individual weapon, clubs and their like were discarded fairly quickly in favor of better weapons. With the rise of the shield wall and heavier armor types, a new weapon was needed. The main combat was being conducted by the spearmen on either side of the wall, but this never lead to any great advantage to either side. If you could break through the wall, however, and your troops had high speed close combat weapons, then you could quickly shatter the enemy phalanx and destroy them. There were several contenders in this category. The two most successful were the falchion and the axe. Another was the mace. The philosophy was simple: You had all the weight at one end so a quick swing could deliver maximum force to the target. This meant you could do enough damage to get through a shield or breastplate, but still be fast enough to get inside of a spear and kill the guy wielding it.

This raises the question as to why the sword was so popular. The answer is simple. A sword is almost as fast as an axe or mace and has better range. It is also faster than a spear and has at least some range. Spearmen will still kill swordsmen, and axemen can kill them if they can get into a close press, but the sword can fight against both to some extent. The proper use was to keep a reserve of swordsmen behind your line. If a breach formed in the shield wall, you could send in the swordsmen as a stopgap until you could reform the line. If the enemy spear flanked you, they could help there too. If cavalry got behind you and you couldn't set spears in time to stop them, the swordsmen charged in. As a result of this, your swordsmen had to be well trained, well but lightly armored, and fast. This meant that you were talking about elite wealthy troops. Thus the swordsmen were the knights, Samurai, Cavaliers and the like. In effect they were the fighter pilots. The bombers do all the important work, but the fighters get the credit. Same thing here - Axe and spear are your best weapons, but the guys in shiny armor with swords running up and down the field to all the hot spots are the ones that catch your eye.

6.5 Full Plate Acrobats

One of the bad ideas mentioned before in the name of "armor diversity" is the pervasive notion that plate armor turned one into a dexterity-challenged hulk who would be lucky just to raise his weapon arm. In that same vein, chain provides less protection, so umm it must allow much greater freedom of movement, right? Wrong.

A suit of chain was in fact typically lighter than a suit of plate (some 30 lbs. compared to around 65 lbs.), but a chain hauberk has terrible weight distribution. All of the shirt's weight falls on the shoulders of the wearer, and on the wearer's head in the case of a hauberk with an integrated coif. Think about wearing a jacket with 30 lbs. of lead weights hanging from it and you get the idea. On the other hand, articulated plate is custom-produced for the wearer by a master craftsman, and weight is distributed fairly well. Articulated plate keeps its shape in bizarre circumstances, too. It is fully possible to do cartwheels in full plate if one is strong enough. The same cannot be said for chain.

6.6 Controlling the Availability of Arms and Armor

There are non-cheesy methods by which game masters and designers can encourage the use of inferior types of arms and armor in a campaign without resorting to increasing their effectiveness unrealistically. The realistic solution is to limit the availability of such items in the milieu to players, using rationales like expense, rarity of materials, difficulty to construct, requirements in social standing, etc. This is fairly easy in a pen and paper setting, where the GM is regulating the activities of a small party of players in a world he has complete control over. In the computer-driven game it becomes more difficult, and in an MMORPG it has not been done effectively to date. This is because of the exploitability of a computer referee, and the inability of an MMORPG to control its economy effectively. For now, we will focus on the MMORPG, as it is the most daunting of the environments to restrict, and its solutions may be applied piecemeal to other milieus.

The most widely-used barrier to the availability of powerful items in an MMORPG is expense. Plate costs a lot, right? This is also, coincidentally, the most *useless* concern in any MMORPG to date. No MMORPG has ever managed to control its cash economy effectively. If money is easy to get by killing monsters, players will repeatedly kill those monsters until they are millionaires. If there is a craft-related way to make money, players will tailor and lumberjack for days in order to buy their keeps. If money is just scarce all-around, players will dupe and cheat their way to riches, and the expensive advantages money will get them. Controlling game economy is a whole other section.

Another barrier to powerful types of arms and armor craftable by player smiths is a high skill requirement. Ditto here. As long as players can *see the numbers*, they will quickly figure out how best to raise those numbers to grandmaster status or better, and then this information will be published on the web. Shortly thereafter, someone will figure out a system for automating the process with a macro or bot, and (using Sphere as an example) you will soon have an unusually large number of clients connected who are making daggers endlessly for days. Removing the numbers is a semi-effective barrier to this sort of nonsense, and is also covered in another section.

Requiring players to travel to some far-off location to get their hands on decent equipment is an overused and often cheesy method of arms control. It also has a low rate of success. In many cases, these sorts of provisos make no sense at all: in a world where adventurers use about 12 towns as base camps, why then is all the plate mail coming out of one town? A skilled smith capable of fitting and crafting plate or fine swords would do well to move into an area where there was no competition, or to sell his non-custom wares like claymores to travelling merchants who could then sell these items at a profit elsewhere. (This never works either, as players will always find away to cheese their way into the cheap town, usually with magic if it is available.) If the reason all these smiths are in one place is just because there are only *one* small group of smiths who can do it, then these individuals would most likely be pressed into the exclusive service of the local NPC monarch to give his troops the edge. They would also be likely targets for kidnapping and assassination.

Worse yet, despite the fact that this "travelling to get your stuff" idea never ever works, it gets used again and again with respect to better and more unbalanced weapons and armor. "Hey, there's this (super item) you can only get at the bottom of (some dungeon)!" First of all, *super items are bad*. (See the balance section.) Second, what the hell are they doing at the bottom of a dungeon? Third, it doesn't matter, as proven in EQ and AC... players will set up a camping conga-line at the spot where the crazy axe spawns, and so much for rarity.

The only conceivable methods by which this hyperinflation can be controlled are as follows:

Expense: Expense only works in a campaign or setting where the economy is under control. Therefore, the referee/developer *must* address issues of economy before hoping to use it as a controlling factor.

Skill: Removing all the numbers from the players' clients can help to control the process of botting to godhood, and encourage a more natural progression to high skill by usage for players wishing to create these items. This means that the referee/developer also has to make the mercantile aspect of the game solid, with reasons and fun factors for merchants of all skill levels, before using this as a controlling factor.

Location: The only reasonable way this can even be considered as a barrier to arms procurement is through logical considerations. Maybe the town of Crag maintains strategic control over the richest iron mines in the area. Maybe the local smelters in Nihon have secret tempering methods. Maybe it's simply *illegal* to manufacture war implements in most places without a license. Having said this, all of these considerations become meaningless if black box cheeses like magic are used to quickly go wherever one wants without inconvenience or expense. Game design is a holistic process, and if any one of the relevant factors to a process is badly implemented, everything it touches is likewise poisoned.

6.7 Spears Rule

Spears have never really been given a fair shake in traditional fantasy gaming. A spear is somehow not as romantic as the "long sword," despite the fact that it figured prominently as a heroic weapon in the mythos of many cultures, including the Norse and the Greek, two popular sources of RPG root material. Historically, the spear was *the* weapon to field, starting with the Greeks (before that, the club was the primary implement of killing the other guy, while the spear was primarily for hunting). Rows of tightly packed spearmen was a popular and standard tactic from the earliest phalanxes up through companies of Swiss pikemen and the bayonet charges of the 19th and early 20th centuries. A spear is simple enough to put into the hands of the greenest peasant levy, and versatile enough to have entire systems of combat based around it (especially by the Chinese). In a one-on-one fight between a spearman and a swordsman of comparable skill, the spearman is the odds-on favorite to walk away. Yet in all forms of fantasy gaming from Dungeons and Dragons to the MMORPG systems of Asheron's Call and Ultima Online, the spear is disregarded as a decent weapon most of the time, and for good reason: the weapon's game statistics are always lackluster, always less effective than weapons like the sword. Why is this?

First look at the predominant advantage of the spear in realistic combat. A spear in its simplest form is a dagger on the end of a pole. This was a simple method of increasing the *reach* of the wielder, allowing him to strike at a longer distance than a dissimilarly armed opponent could counter. The spear immediately puts an enemy with a smaller weapon on the defensive, while at the same time increasing the wielder's own defense by the virtue of being out of reach. This is *very* important. A swordsman or other enemy who wants to get to the spearman must first get past the effective range of the spear, which is daunting to say the least, as trying to slip in puts one at great risk of death or grievous injury, both paralyzing possibilities in mortal combat. The advantage of superior reach led to longer and longer spears, eventually cumulating in the specialized awl pike at around 18 feet or so in length.

This strength becomes even more powerful when applied to mass combat. A well disciplined line of spearmen all pointing at your line was a serious issue to contend with. The concept of the spear phalanx was so central to mass combat that shieldbearers were enlisted to protect them. A shieldbearer is a man whose only job is to plant a tower shield firmly into the ground in front of the spear line to keep enemies from penetrating the line. The spear phalanx was the only tactic of its day capable of dealing effectively with a charge of heavy horse (archery could also deal significant damage to cavalry if they were not on the move yet).

The big problem with the misrepresentation of the spear in fantasy RPG's is that there are almost *no* systems that reflect the power of extended reach in pen and paper, and none at all in MMORPG's. The best model of spear combat is in Shogun: Total War, a strategy game. Almost universally, the designers of fantasy RPG's, computer or otherwise, have a vision of dark ages melee combat that

comes from watching two actors bash each other with pieces of aluminum at theme restaurants like Medieval Times. In these cases, the winner is not the one who has a better intrinsic understanding of the attributes of his chosen weapon, he's the blond guy.

How then can the power of pole weapons be represented in simplistic engines and systems that don't track the exact x, y, z location of the striking surface? Engines like the Turbine engine 1.0, and most certainly the UO isometric engine, have no ability to know or care about how many feet and inches an opponent is from his target. A simple way to reflect the reach advantage in games like this is to assign defensive bonuses to the man with the spear. The spear is, after all, primarily a defensive weapon, aimed at keeping the enemy far away from the wielder. In a more advanced model, weapons and techniques could have "reach" parameters assigned, and defense modifiers assigned to the person with the greater reach. A system like this would also allow for considerations like proper greatswords, pikes, and the absurdity of charging into a battle with a ceremonial punch dagger, but would represent an additional drain on resources and bandwidth, important considerations given current wide area networking technology.

6.8 Maces Are Not Slow

The historical mace was not a gigantic pole with a tremendous 20 pound ball of iron-sheeted lead at the end of it. This was more properly a *maul*. The footman's mace was actually a light weapon with all of its weight at one end. It was designed to deliver a decent amount of energy to the target while being swung *quickly*. Plus, it was extremely easy to use.

The mace has been in use since the Neolithic era, when someone figured out that a rock tied to the end of a club with sinew would be a nifty way to bash one's food source, or enemy. It requires relatively little training to use, works decently against most types of protection, and doesn't require the wielder to worry about which way the weapon is oriented when it slams into the target. It was popular as a hand weapon for shieldbearers backed by spearmen, in case someone got through the shield wall, and amongst cavalry, where its ease of use was appreciated while one was trying to stay mounted.

The mace, especially with developments such as the flanged head, was fairly effective against most forms of body armor, though never spectacularly so. It did fairly well against boiled leather, cloth, and stuffed armors, although these armors were particularly well-suited to deal with impact weapons. When flexible maille was developed as a counter to slashing weapons like the battle-ax and falchion, the mace was hardly slowed down by wire mesh. When steel plate was used to avoid the unpleasant experience of having one's maille split by a stiletto, spear, or greatsword, the mace could still deliver a decent shock to the target, and with enough energy and a concentrated force like you would get with a flanged or spiked head, one might leave an extremely inconveniencing dent in the metal, pressuring the wearer until he could get it off, or even pulverize the bone and flesh underneath with transferred power.

Why then did the mace not remain the weapon of choice through the various eras of pre-gunpowder warfare? Well, it was very popular, but never gained the romantic airs attributed to more aristocratic weapons like swords and lances, and it still wasn't very decent against the pre-eminent group tactic of the time, the spear phalanx. The mace did okay against most types of personal protection, but didn't really excel against any of them, and an informed fighter would logically want to pick the right tool for the job based on what his target was wearing. The use of the mace, or any short-handled weapon, carried with it the problem of *reach disadvantage*, a very important concern. In addition, various advanced and complex treatises have been found relating to the use of weapons like the English broadsword, but to my knowledge there was no similar study of the use of the mace. You swing, you hit. Very straightforward and effective, but it doesn't lend itself well to fantastic notions about being a great warrior. Nobody ever wants to be known as "Supreme Master of the Mace."

In any case, the mace of the typical fantasy game milieu perpetuates the myth that a mace is a huge, heavy, slow as all hell weapon, a label that carries with it slow speed ratings and weaknesses in game systems. Only in a system where the effectiveness of a damage type vs. a particular type of armor can the mace really come into its own as a decent secondary weapon: quick to swing, all-around effective, and easy to learn.

6.9 The "Adventuring Archer" Myth

The whole world loves archery, it seems, and at some point or another want to make an archer, a lone hunter who traipses through the woods and hills of his chosen milieu with little more than his bow of choice and about 14 million arrows, laying waste to the countryside. To me, this idea has always seemed ludicrous. I personally happen to like archery a lot, both the English and Kyudo varieties, but if I was a skilled archer and saw some guy running up to me with a dagger, I'd hightail it or grab my own dagger. The thought of one man casually walking around a game world with a bow, fighting enemies toe-to-toe with arrows, and living is completely ridiculous.

The bow is, no doubt, an extremely useful and powerful weapon. With the development of more powerful bows like the English longbow, the Mongolian composite, and the yumi, armor for the poor footman became thicker and stronger, as the bodkin (armor-piercing war arrow) sliced through maille even more effectively than a pick. Even then, a good archer with a high-pull bow could send a shaft through an enemy's breastplate. There were a lot of foot-pounds concentrated in that little spike. However, the maximum damage you can impart to an enemy without striking a vital organ or somesuch is limited; people used to run across the field with several arrows sticking out of them, if they were lucky and brave (or stupid) enough.

The reasons the English didn't go to war with nothing but archers are many, and they're all good. The bow took a long time to learn to use properly on the field. It's *hard*. Archers trained from childhood, and didn't do much else in the way of martial training. They were valuable commodities.

Second, archers are demolished by anything that gets too close to them. When an archer was confronted by a guy with an axe, two things could happen: the archer was instantly killed, or his bow was shattered, *then* he was instantly killed. Cavalry in particular was devastating to archers, and woe was the commander who let the enemy flank his archers with light or medium horse. The best tactic for archers when faced with close quarters combat is to use the superior mobility afforded them by their lack of armor and run away as fast as possible.

Third, archers on the battlefield are used in large groups firing volleys, like musketeers. Volley at the enemy when he's at optimal range. This means at least enough range for the arrow to actually arch through the air (get it? *Archery*) so it has maximum energy as it falls to earth. Rip up the enemy as best you can while he's far away from you, and when he gets too close, let your infantry or heavy horse deal with things. If your archers are fighting in close quarters with their pitiful daggers and hand axes, it's probably because you, their commander, are fleeing the field as quickly as possible and want to buy some time for yourself.

What does this mean for the fantasy RPG archer character? Every one of these weaknesses has a direct impact on the realistic expectations an "adventuring archer" might have at the start of his career. The proper use of the longbow or similar weapon should be extremely difficult, and unless the milieu is set in a time where technology allows for the mechanics required to manufacture a proper crossbow, one can assume that most of the character's life has been spent learning how to shoot. An archer who tries to tank an opponent should realistically be quickly and unceremoniously destroyed. An archer might be able to land a shot into the eye of a man 50 yards away, but when that man's pals start running for him while he fumbles to grab another arrow, he's got real problems.

There is one historical exception to the rule about archers being the meat of one's attacking forces, and this is *horse archery*, only ever successfully practiced by the Mongols and the early Japanese

(plus some late bronze/early iron cultures like the Parthians). Mounted archery, while extremely difficult to learn and use, was a great skirmishing tactic, with soldiers riding right across the front lines of enemy infantry, harassing them with arrows and staying at a (hopefully) safe distance. However, the general principles are the same: do not get close to the enemy, run away if he charges you. For the Japanese, this meant leaving matters to your lines of ashigaru conscripts with yari; for the less territorial Mongols, they would typically feign retreat and continue pounding their opponents at a distance, only closing to finish with saber when the enemy was already beaten soundly.

Note: It should be noted for anyone who wishes to use this as a model for their "adventuring archer" character that the Mongols used tiny recurve composite bows with a draw weight of about 160 pounds and an effective range of about 350 yards, compared to the more typical 50-60 pound pull/200ish yard range of the English longbow. This technology was not available anywhere else in the world. Under the genius of Temuchin/Chinggis Khan and his best generals (most notably Subedei), they utilized speed, mobility, and deception in a way the world had never even heard of. They were considered superhuman in almost every respect by their terrified enemies. The Mongols were an example of imbalance in real life combat, and their total dominance reflects this imbalance. In a mixed fantasy setting, any GM or developer who decides that players can be Mongols would be required to impose very severe disadvantages to make up for this. A historically accurate Mongol in a world of Teutonic knights might as well have a submachine gun.

Realistically speaking, then, the use of archery in a typical fantasy medieval setting should be relegated to support in group combat, or special circumstances like killing enemies across a river (who will probably hide to avoid this after shot number one). The use of the bow is not uncommon for hunting purposes, and it stands to reason that a well-rounded "adventurer" would know how to fire one *in the circumstances appropriate to archery use*. The "solo archer," then, is rightfully confined to his primary historical purpose: hiding in a tree stand waiting for a deer to wander by.

6.10 About Archery (Shadwolf)

Archery was a devastating weapon on the battlefield, but only if used properly. There is obviously a maximum range at which they can fight, but there is also a minimum range. If the enemy is too close, you are not getting optimum power on your arcs. Additionally, it is nigh impossible to pick a specific target and hit it while it's on the move in a battle. No one who ever tried this tactic had any degree of success. This is one of the reasons the English archers were so successful. The English found that you did best by dropping volley after volley indiscriminately into the enemy ranks. Once he began to close, you had to worry about hitting your own troops. If the enemy got even a few men into the ranks of your archers, every infantryman would kill several times his number and a horseman would resemble a scythe going through wheat. Not only did they have the advantage over the archer in close combat, but he could not even fire back.

Of interesting historical note is the response to archery and, ultimately, to guns. These weapons were best against heavily armored opponents. The response was to create faster, more lightly armored troops. These could rush in on the archers quickly with minimal losses and destroy them. Terrain was a big issue as well. There is an important concept known as the *military crest* of a hill. If you place missile troops atop a hill, they can kill enemies at range, but anyone coming up the hill is sheltered from their fire. The modern response is to place your troops slightly down the slope of the hill. In the case of archers, this is often difficult to accomplish with any sort of discipline. Gunmen can crouch or go prone with ease, but an archer has to stand on this uneven ground in some attempt at a formation. When defending himself, he gains less advantage from the higher ground than a melee fighter would.

An archer as a solo character had additional problems. A bow cannot be carried strung for any length of time. Doing so weakens the arms of the bow. Stringing one is a difficult process and cannot be accomplished in a crisis situation. It is doubtful the enemy would stop and wait for a minute while you string your bow. Additionally you can only fight targets that are at a significant range. The common historical response for an archer to close combat was to throw your bow at the enemy to give you an

extra second to draw a knife. There are also several historical stories of archers attempting to use an arrow as a dagger. Most of these stories end with a dead archer.

6.11 Big Weapons Are Not Swung

The nigh-universal image of the fantasy warrior with a greatsword is of a brawny hulk swinging a gigantic piece of metal around his head, cleaving hapless foes in two. The UO animation for halberds is of someone holding the head over his shoulder and swinging it into the target. As a result, these weapons have traditionally been assigned very high damage ratings because of the momentum that *must* have been imparted by such herculean swings, and very low speed ratings because of the effort it must have taken to lob around a giant piece of metal.

Long weapons like the greatsword and polearms were used because they offered the same advantage as a spear: that of *reach*. The greatsword in particular often lacked cutting edges altogether, and was used as a stabbing weapon. The proper techniques associated with the use of polearms typically involved extension toward the enemy and some sort of use of the head, with relatively little movement. The halberd, arguably the most successful of the ornate polearms, had no less than 3 distinct functions, including stabbing like a spear, hamstringing enemies like a scythe, and dismounting knights like a bill hook. Among its purposes was *not* to be swung like a giant battleaxe.

The only way to accurately reflect the advantage of proper large weapon technique in a game setting is the same as for the use of the spear: defense bonuses for the wielder. This can be somewhat balanced by the consideration that since the weapon is not being swung for horrific amounts of damage, the damage rating of these weapons can be reduced to a more appropriate level.

6.12 Realism in Combat (Shadwolf)

Realism is a good thing. If nothing else, it serves as a model of how things will develop. It is useful to know which weapons really work and how they are used, but it also applies to the stuff you make up. If you decide to use a bagh nahk even though it is a stupid, useless weapon in real life, and you decide to call it a nekode, consider the stats you give it. If it is faster than any other weapon and does more damage in a given time and is easier to learn than any other weapon, why would anyone ever want to use a quarterstaff?

7 Writing

7.1 The Importance of Absurd Detail

Detail is what makes or breaks immersiveness. Adding little things to a game world (pen or computer based) that make it seem a little more "real" make it more pleasurable to the player. The less detail there is, the more you break the illusion, and the more you remind the player that he is playing a stupid game.

Sometimes, the level of detail in the pages seems completely excessive and unnecessary. Does it really matter to the average player of your game how good your basic grain yield is per acre? Does he care about the details of your fictitious history about the rise of the merchant class? Or the differences in a sword forged by standard techniques as opposed to pattern-welding? Probably not. He just wants to know what the best weapon is, and where the monsters are. However, they are important to some players, and it gives you a stronger basis for logical story evolution and lore.

It also helps you deal with questions from the players and unanticipated actions. When players start asking you about why they should care about defending the outlying farmlands, you can tell them that they will starve if they don't and why. If they want to know why their orc loot isn't netting them much (if any) coin from resale, you can explain that orcs use bronze and stone for weaponry, and why they don't have readily available high-quality iron and steel. And of course, you can provide basic information that explains to the players exactly why they have to go kill them in the first place, without shrugging and saying, "Duh, it's a role playing game, of course you go kill the orcs! That's what they're there for!"

There is also a certain "cool" factor associated with mad levels of detail. The first time one of your players discovers that the monster spawns actually migrate in a logical fashion, and react to massive defeats at the hands of players by relocating, they can think, "Wow, that's cool." If they can actually watch and supervise the construction of their house by hired carpenters instead of just double clicking a deed, that's cool too. Attention to the most minute of details helps to engross your players into the environment, maintaining their interest. Minute detail sets your game world apart from other game worlds with comparable fun factors and interfaces, and you can enjoy the corollary benefit of players who appreciate this using it as ammunition to flame your competitors, an indirect act of aggressive consumer-based marketing.

One note about extensive detail: Extensive detail is especially important when constructing the lore of your world, making sure that it all makes sense, it follows a logical progression, and most importantly is *well-written*. However, the general lore of your game setting is only initially released in small, broad amounts, like a basic timeline and common knowledge. The detail exists in-game as layers to discover and ultimately disseminate through the internet, but that's okay. The fact that your history makes sense, and that lore-minded players can research it, is another avenue of play, something that is very important.

7.2 Secret and Public Lore

Some of your game world's story, or lore, is going to be hidden from the players, as it should be. This gives them something to discover and be interested in, if such is their bent. However, one can go too far in hiding the lore of the land, and ultimately overzealousness in concealing the story makes players give up on it altogether, especially if your lore is particularly stupid.

In order to maintain player interest in your lore, it must be available to them to some extent, in an easily accessible public form. The best way to do this is to incorporate the lore into the game itself. Posting the lore of your game on a web site or some other external medium as a sole form of information only serves to remove immersiveness from the game. Most players won't even bother to do this, as the lore has no direct impact on the play of the game. For those who are actually interested in lore, it begs the question of why they would want to subscribe anyway, since they can simply read what they are interested in for free. This point is particularly valid if the player has no direct impact on the story. (See "[Open Ended Storylines and Player Subplots](#)" and "[Multiple World Plot Development and Contingencies](#)" for more about player impact.)

Therefore, the lore *must* have a very visible and obvious presence in the game world. If a ruined city-type dungeon environment is named after a historical warlord who once inhabited it, there should be traces of his presence inside the dungeon. There should be a nearby village full of people who can tell the players the story of the dungeon. There should be a book about it in a library in the central city, among many other books dealing with similar tidbits. If a town was founded/defended/whatever by a historical figure, place a statue of him in town with a little plaque explaining his deeds. You might also do this for player characters who are particularly heroic on a per-server basis, bringing more of a sense of identity to that server. Lore can also be important to questing, mage-oriented questing in particular. Remember, the literary mage was typically more a repository of bizarre arcane information than a fireball factory. All of these systems may seem a little heavy-handed, but sometimes you have to smack someone over the head with a book of lore to get them to notice, especially if they've been numbed by countless RPG's where lore has no importance.

Ongoing lore, such as the plot of Asheron's Call, also needs to get heavy publicity. Any company-mandated event is probably something of such magnitude that most of the world should be aware of it, even if it doesn't directly affect everyone. Town criers, gossiping NPC bar patrons, and such can help ram the event down the throats of your sleepwalking player base, without requiring them to go to a web site for information. The oral tradition can become part of your game world's color *and* propagate lore, in the form of NPC storytellers who spin yarns about what happened several months ago. You can even tailor these stories to the individual world, allowing player actions to be immortalized, giving them additional impact. A compilation of current and recent lore can be compiled into a journal accessible in-game. This can also be presented via a web site if you like, for the casual player who wants to check up on things while he's goofing off at work. Again, it does you no good if your lore for a past event consists of two horribly general paragraphs about what monsters came in for some mysterious purpose, buried deep inside an inscrutable and unnavigable maze of your publisher's site. If you want to use the web as a tool for game publicity and lore, try to get your own domain.

In regards to the use of secret lore, it's really important to make sure you have it mapped out in as much detail as possible, and that it all makes sense. This means a minimum of heretofore unexplained black boxes to validate events. If you think of lore in levels of detail and availability, you want to make sure the clever player can infer the nature of the next level of detail by examining the level above it. For instance, a general piece of knowledge is that the ancient empire of Sutannica was destroyed in a great battle. If players find information in a library stating that Sutannica's Field Marshal Brox was both brilliant and a champion of peasant rights, and another piece of information indicating that Sutannica's nobility was especially harsh on the peasants, they might infer that Brox was a key figure in a rebellion that toppled the empire. This may or may not be true, but when the players find the next level of detail that affirms or denies this, there should be enough supporting evidence in the preceding layer to make the truth make sense. If it turns out Sutannica was destroyed because a random wizard who nobody knew about opened a gate and let 40 demons out who killed everyone, this is a cheesy black box. It's akin to having the Lone Ranger survive a train crash from the end of the previous episode by jumping off a freight car at the last second, revealed only at the beginning of the next episode. It's cheap and stupid, and player-detectives will throw up their hands in disgust and never care about lore from that point forward.

7.3 Beyond Good and Evil and Stuff

One of the classic misconceptions about games, role-playing games in particular, is the definition of Good and Evil. Evil tends to be misused horrifically, applied to everything from a brainless NPC monster to a guy who lives to kill players for no reason. The scope of a true definition of "evil" is beyond the scope of this document, but suffice to say that real evil does not exist in a commercial game. If it did, the game would be too disturbing to support a viable subscriber base, and would probably violate a lot of laws. In game terms, as well as in real life, one can define "good" as being in accord with your own interests, and "evil" as being opposed to them. This is an inaccurate use of good and evil, but it's the way these terms were used to exhort children to march across the desert to take back the holy land (before they were sold into slavery), so it works just as well as any other.

So disregarding good vs. evil as a possible source of conflict, you have some realistic and perfectly viable choices for player (and NPC) motivation:

- Nationalism
- Religion
- Economic Interests
- Social Power
- Fame
- Personal Achievement

Why should you, as a designer, care about the distinctions between realistic motives and the hackneyed good vs. evil concept? Because it lends credibility to your world. Monsters don't attack humans because they're "evil," they attack because they want more lands and resources (Economic Interests), they want to impress their own leaders (Fame/Social Power), they are mad because the humans did something bad to them (Nationalism), etc. A player can theoretically find out why the monsters are doing what they do, which is a quest in itself. This helps to flesh out your world, makes it more immersive, and helps it to stand out from the pack of other games where monsters just stand around and attack players because their algorithms tell them to.

From the player standpoint, it also helps to define players' roles in society. A paladin who goes out to drive back the hordes of monsters that threaten the local farms is doing it for reasons better than "being good"; he is doing it to defend his homeland (Nationalism), to insure that his people get enough to eat (Economic Interests), and because the church has decreed that he must (Religion). A player who aspires to a noble title with lands and holdings does so to become rich (Economic Interests), status (Social Power/Fame), and just to say that he's the Earl or whatever (Personal Achievement/Fame). Understanding the motives of your players and their characters (hoping against hope that the characters are being roleplayed to the degree that they *have* motives of their own) is key when designing content, goals, and quests that you hope they will be undertaking, and making goals appropriate to each of these motivations attractive and fun enough for players to want to pursue them.

7.4 Open Ended Storylines and Player Subplots

The best use of the RPG setting, in my opinion, is in the flexibility of an open ended storyline. The referee makes a detailed description of the world, its inhabitants, social dynamics, physical features, etc., gives the players the seed of the plot, and then roughly sketches out a number of different paths they might follow to "solve" the adventure, knowing full well that the players will miss most, if not all, of them. This requires an especially good gamemaster with a quick mind and improvisatory ability, to be able to cope with whatever harebrained scheme the party might throw at him. It is the most rewarding for the players, as they no longer have the feeling of being railroaded through a sequence of predetermined events, their only contribution being the rolling of dice to see whether or not they kill the enemy in front of them so they can proceed to the next staged encounter. The players and the referee

are effectively collaborating to create a work of fiction, and the satisfaction of doing so is shared by all involved.

Computers are notoriously horrible at this style of refereeing. To do so, the programmer must try to conceive of every possible approach to a problem a player might take, and code appropriately, using true-false values in combination with advanced fuzzy logic to deal with all the grey areas. Even then, it is almost impossible to determine what a player will do, and exactly how the environment should react. Worse still, a player doing something in an unconventional way logically has an impact on the further development of the story, requiring the computer to rewrite entire sections of the adventure on the fly in the perfect model, in accord with player choices and consequences. Multiply this with every possible quest in your world, and every player who will approach that quest, and you can understand why it's more practical to fall back on the "go through the dungeon this way and fight stuff" model. This model, however, is woefully inadequate for an ideal persistent world in which players feel they actually make a difference.

A compromise may be reached between open-ended stories and a linear plot, however. Since the determining factor in an open-ended plot is the actions of players, you must therefore (1) support advanced player interaction via trade, socio-political systems, and PvP, and (2) manage the logical consequences of such interactions on a case-by-case basis. The great advantage for the content team in this case is the fact that the actions of players are determining the various subplots, not development manhours. The disadvantage is that someone *should* be scrutinizing these subplots occasionally to ensure that they don't fly too far outside of realistic world dynamic concerns, and most of all, these will be happening on a per-server basis in a mirrored world environment (like any of the big three).

This last concern has certain implications for the concurrent linear plot, i.e. the "official" story of your game world implemented by the development team. Unless you want to effectively run as many official plots and events as you have servers, increasing your content overhead by the same amount, your overall official stories cannot be significantly impacted by the player-driven subplots. This means that clear restrictions have to be placed on the players who wish to advance their own plots in the form of restricted building zones, maximum amount of political power wielded, etc. If Joe the Monarch builds a shell keep and cultivates 40 acres of land somewhere in the wilderness, that land is now no longer usable as a staging point for a massive invasion. However, if the keep is right on the border, and the invasion happens to start nearby, they will inevitably cause problems for Joe the Monarch and his holdings. In this way, player subplots and official storylines can coincide on a per-server scale, drawing the players into the official storyline, giving them new opportunities to participate and actually make a difference within the context of their version of the game world.

7.5 Content Beyond Powerleveling (Shadwolf)

One of the biggest issues in games is always powerleveling. Certain players will powerlevel and break the game and this becomes unfair to the other players. There are some fixes to mitigate this, such as "no numbers," but these will not eliminate the problem. The problem is more basic than this; it is about motivation.

Everyone has a favorite story or movie. They watch this movie or read this book and think "gosh, Aragorn is so cool. I wish I could be him." Fortunately, you have roleplaying games to allow you to play out this fantasy. You whip out some dice, roll some stats, assign them in the appropriate order and list all your skills. Next you buy your equipment. Now the best part: you write the background. Noble heritage... dispossessed...family heirloom sword...mysterious demeanor... etc. Now you are ready to play. What do you do?

You have a really cool character. You know he is good at smiting evil and doing heroic deeds. Hmm... I guess you go look for some evil to smite.

Alternately, you are a game master or game designer. You have a fantastic idea for a game world. The people of Shangrila have lived in peace for centuries. They have known limitless prosperity and developed amazing new sciences. All this was shattered when the evil Necromancer Urghblech unleashed his mighty army of hideous orcs upon these unsuspecting people. Can anyone save them in time? Great - now what do the players do? You need a plot. Wait.... you don't need a plot - you have an army of orcs for the players to kill! When they get too tough for orcs the Necromancer will summon Ogres for the players to kill. These will later be augmented by Ogre mages, Dragons, Red Dragons, Blue Dragons, Copper Dragons, Curium Dragons, Radioactive Polka dot Dragons, Elder Radioactive polkadot Dragons and ultimately by something called a K'tl'aa'draclqw that looks like a multitentacled jello cube and fires thousand point damage area affect lightning bolts and is only affected by +329 or better cheese based weapons.

With players like this in worlds like this, the goal is to kill monsters as efficiently as possible. What is the best way to accomplish such a goal? Powerleveling. So how do you eliminate powerleveling? Take away the motivation. Maybe the event of the month involves finding the spy who has infiltrated the imperial court. Perhaps the queen is dying of a strange illness and the king has promised great riches to the first person to find the plant that is needed to make the cure. Perhaps a terrible artifact(s) is found and anyone wielding it/them gains great power but is slowly drawn to evil. Some players want to obtain the artifact for their own use - others wish to destroy it. These are simple plot ideas which are taken from common fantasy genre stories. There are thousands of starving authors out there writing this kind of stuff. I bet they would be willing to sell such a storyline for far less than it costs to hire a programmer to come up with "There are these infinitely respawning monsters everywhere and the players have to kill them."

Okay, so now you have a plot. What does this accomplish? The players become immersed in the game. They work to accomplish these goals. Some players with more limited imagination will still waste their time powerleveling, but most will be more interested in seeing how the plot develops. The best gamers will be rewarded by becoming integral parts of the storyline. Never underestimate the power of recognizing a player. When the web page announces that Lord Ragan has been appointed as Field Marshall of the army of Blackmarsh, you have made that player's life complete and most of the other players are going to wish they were him. These goals must be meaningful, however. The announcement that Chef_Dewd34 has won the royal cooking contest because he was the first one to make rice krispy treats does not add anything to the game.

(Rice Krispies is a trademark of Kelloggs corporation. Useless cooking contests to enhance "roleplaying" is a trademark of Turbine games)

7.6 The Merits of Mindless Slaughter

Most of the content in this section is concerned with providing for a realistic, deep, immersive environment that allows roleplaying to flourish, and gets beyond the prototypical dungeon crawl model for fantasy gaming. This is because no MMORPG on the market, or any that look promising in the near future, provide this very well. However, this is not to say that hack and slash isn't appropriate in the MMORPG. In fact, combat *must* be a significant portion of the overall content. This is because:

- Customers expect this due to force of habit
- It's fun
- A game based only on dynamic plot content and questing is impossible to maintain for any significantly large player base

However, the implementation and presentation of this combat portion of the game could be presented far better than it has been in the past. In the normal automated RPG, you typically have areas with respawning monsters of various types: the newbie dungeon, the medium dungeon, the hard dungeon, and the boss dungeon. In the MMORPG model, these dungeons are static and never ever go away,

or change much for that matter. You stay in the newbie dungeon until you can go to the medium dungeon, etc. etc. This is exceedingly boring and stupid.

Assuming you can't just have the monsters stay dead once killed, which punishes everyone after the first guy to find them, you need to find some sort of middle ground. The basic elements of realistic and intelligent hack and slash presentation are:

- Reasons
- Consequences

Some games attempt to make an attempt at reasons for "hunting grounds," but because of lack of consequences they turn out trite. Why is there a dungeon close to town full of lesser humanoids? Are they there just to get killed? Not likely. They would be raiding farms, poaching, acting as advance scouts for a more powerful force, or maybe they're just homesteading, but they're too antagonistic to coexist with the local population of humans. They also can't be right outside the city gates, or they would have long since been exterminated by the militia as a menace! Placement of even the most low-level of spawns has to be done as logically as possible, or your players will laugh at you. They will probably laugh at you anyway for some reason, but it's worse when they're right.

Consequences of player-monster conflict are harder to deal with from a practical standpoint. An advanced strategic-level system would be required to "keep score" of monster-human conflicts and adjust spawns accordingly. If the newbies keep trashing the local swamp goblins, it's unlikely the latter would hang around and take it. They would leave, get reinforcements, or possibly all kill themselves in a spectacular but doomed suicide rush on the town. If they vacate the area for any of these reasons, they need to pop up somewhere else, preferably somewhere equally accessible to the characters who would most likely benefit from hunting them. The location of the goblins would be fluid, as they migrate hither and yon, looking futilely for a spot where they can establish themselves. Note that unintelligent enemies like animals wouldn't be as likely to make such an organized effort, though they might be pressed into new territories, and certain monsters that are tied to a location for whatever reason would stay in the same general vicinity.

Likewise, an ideal system would allow for the consequences of monster success. If the Broken Fang tribe of orcs moves in near a little fishing village and is unmolested, they will grow in power and influence, attracting more allies to their cause, and the hamlet will be overrun until the players take care of the problem. In this way we can start to approach the treatment of intelligent monsters as more than attack dummies, viewing them instead as rival kingdoms and peoples who are out for land control just as much as the humans.

A simple example of fluid monster distribution is the idea of the "frontier" area. This can be used in conjunction with the fluid spawn zone concepts described above, and it provides an ideal and logical way for players who just want to go kick some ass to do this. The frontier is a portion of the map (possibly but not necessarily the edge of where players can go) which is an entry point for new monsters. Monster groups enter the land at the frontier line and begin looking for places to settle. More powerful monsters, being more intimidating than their weaker cousins, will settle in convenient spots closest to the frontier, forcing weaker monsters to push further toward the players' territory in search of a home. Therefore, the enemies will get tougher as the players move closer to the source of the monsters, a comfortable convention that will satisfy the most unimaginative of Telengard aficionados. The actual outline of the danger zone of the frontier is fluid, changing as players destroy camps of monsters, forcing them to respawn at the frontier and begin looking for settling places all over again. The frontier can be used as a plot device, i.e. the prototypical threat of invasion from the vile barbarian humanoids that can only be stopped by the heroic adventurers.

7.7 Repeating Quests

One of the many problems with MMORPG quest simulation is the fact that quests are repeatable forever, barring artificial constraints like a reward that one can only get once. For some quests, this is appropriate (like the harvesting of a spell component, or bringing food to an area that needs it), but when you've gotten the Sword of Gulrag the Beheader for the 5th time, and had to stand on line to do it, suddenly the Sword of Gulrag the Beheader doesn't seem quite as epic as it used to. Eventually, it will be either listed on web sites as a "required" piece of equipment for a particular character type (if it is unreasonably good), or it will be relegated to the graveyard of quests nobody bothers to do (if it isn't). Unfortunately, the static repeatable quest is extremely easy to implement and maintain in an MMORPG with a low administrator:player ratio. It's a fire and forget sort of deal (until one of your static quests turns out to horribly unbalance the game).

One possible solution for the boredom associated with static quests is to simply make them non-static. There are two ways to do this, and both of them involve extra work for the administrator:

The quest is a "superquest" and can only be completed once, then goes away.

The quest is designed to go away after it has been completed a certain number of times, or after a time limit has expired.

The superquest concept is not a bad one, and true to the spirit of mythical tales. There was only one Excalibur, one Stormbringer (well okay there was Mournblade too), one hut of Baba Yaga, one Mjolnir, etc. In this way, legendary artifacts and items can remain legendary, and really be something to talk about when the guy wielding one happens to walk by. Keep in mind that such devices must *still* fall under the zero sum balance concept, possibly with associated curses, geas, extreme tax value, and making the character a big target for an enemy faction. Anyone who has read my [rant](#) about the Staff of the Weeping Witness knows how I feel about hyperpowered uniques in the hands of morons.

However, the unique superquest presents a problem that impacts many aspects of a mythically heroic game world: everyone thinks they should be the hero. When one person gets the Holy Lance of St. Augustin and ends the quest, that's one person out of all your subscribers, and you can bet that the other subscribers are going to bitch about it. This can be alleviated somewhat by making unique quest items balanced according to zero sum, so that the person with the Holy Lance of St. Augustin isn't perceived as getting a twinky device that allows him to dominate all the content in the game from that point forward, including (presumably) other superquest items. The superquest reward may be better on average than a standard weapon, but then again the guy with a saber from the local shop isn't being haunted by daemons who eat his gold and try to kill him, or afflicted with rotting sores or whatever.

The quest that goes away eventually is appropriate to most static quests as people think of them now. Examples might be bringing grain to a town gripped by famine, hunting an invading army of humanoids that have occupied a town, or recovering stolen diamonds for a well-to-do merchant. After a while, the town is back on its feet, the humanoids have been driven away, and the diamonds are all back. The quests end, and new ones take their places.

A quest of this sort that does *not* go away must be of low importance, or appropriate to lower power characters, like getting a type of ore out of a really dangerous mine for a master smith, who then uses the ore to make items, and thus requires more. Another might be delivering the mail through a dangerous area. This is the standard "Fedex" quest used in the only way that makes sense, and it is rightfully droll. Characters who undertake this quest will be relatively poor and/or low-powered, and the rewards for carrying out these mundane tasks should be petty enough to stop interesting them once they become better established, leaving the quests for other newbies to perform as they go looking for the fluid quests, which change from patch to patch.

Both of these solutions pose the same fundamental problem for the development team, though. Work is thrown away, and new material must be created. Unfortunately there is no great solution to this, outside of a quest generation engine (which has never worked well), so new material has to be cooked up on a regular basis, even if much of the basic material is recycled in some form or another. A dungeon for a unique or ending quest may be a big pain in the ass to design, and you don't want to throw it away, so it may become a home for itinerant humanoids (or a new city!) once the boss bad guy is evicted.

The reward for all of this additional overhead is immersiveness. Long term players will be keeping track of, and maintaining interest in, the lore of the land without having it thrust down their throats. "Remember a few months ago when Gular and his band sieged Thistlewood?" Players will be actively looking for current news and rumors to find out where things are happening. Those that find this annoying can always go to the frontier and kill stuff until they get tired of it. If content is dynamic, though, there will be something for them to check out once they do get bored of killing.

7.8 Multiple World Plot Development and Contingencies

Of the three major MMORPG's on the market right now (AC, EQ and UO), only AC makes any attempt at an ongoing storyline. UO has some "lore" from the previous Ultima series games, which makes no sense and doesn't matter anyway: any plot that happens in UO is usually by accident, and created by the players themselves. EQ has some sort of weak background lore based on a combination of 15th generation Tolkien ripoffs and DikuMUD, but it never ever changes; the world of EQ is even more static than that of UO. AC has an ongoing storyline, with events and such, despite the fact that the vast majority of players don't care about it past the concerns of what new loot is available with the event, but at least there's the attempt. This section concerns itself with AC-like models incorporating an ongoing plot as part of its design.

In an MMORPG model, one has to resign oneself to the fact that a large portion of your plot is going to static, and therefore linear. What this means is that if next month you are planning to have the Rovers of the Frost Barrens start raiding border towns, they're going to be doing it on every iteration (server/shard) of your game world, even if those towns happen to be very well garrisoned in some worlds. This also means that if in January you drop a bunch of clues and lore and such about an upcoming catastrophe into the world, but only one of the shards manages to find your clues, that catastrophe is still going to happen on all worlds in February. If the world that managed to figure out the lore ahead of time deals particularly well with the catastrophe as a result, while all the other worlds get bombed into the stone age, the following month's events will not reflect this divergence between worlds. If you start diverging like this, eventually you are running as many games as you have servers, with that much more content development overhead. This is similar to the problems outlined with open-ended storylines above.

Again, the situation relates to development power in the hands of players, but as it impacts the company storyline, it rests more on the technology you develop to deal with player power than the players themselves. If, for example, you allow players to build houses through a dynamic construction engine that allows for building damage, repair, and the like, then there are definitely variable circumstances that will work themselves out. Depending on what sort of frontier system you are using, the Rovers of the Frost Barrens might run right into a popular player built town at the edge of civilization, kill the NPC guards, and start burning buildings. This sort of thing *definitely* changes the dynamics of one quest from world to world.

Occasionally, though, you still run into problems. The business with the Herald Crystal in Asheron's Call is a perfect example. On nearly every server, eventually *somebody* killed the uber-godlike Herald Crystal despite other players trying to defend it, which was expected, and necessary for the next monthly event to make sense. Every server, that is, except Thistledown. Eventually, Turbine had to send in an invulnerable admin/player to kill the thing to further the plot. Everyone felt cheated by this, and they had reason to. However, it had to happen somehow. Could it have been handled in a better

way? Possibly. The point is that it *had* to happen. If Thistledown had successfully foiled the plot in his manner, implementation would have had to scramble their asses off to give them a different event from every other server. Not only is this horribly impractical, but you would get even more whining from *all* servers about being "left out" of the events happening on Thistledown, or on any other server besides Thistledown.

There is an interesting trick one can extrapolate from various hackneyed time travel novelists. One theory about "changing the past" is that time is self-healing, and that while stepping on an ant 20,000 years ago might have some repercussions, eventually things will smooth over, and Rome will still fall, Hitler will still come to power, and the atomic bomb will still be developed. If we reduce the scale of this example a little, we can apply the self-healing aspect of a multi-server plot to the overall chain of events, but allow things to diverge slightly on a server to server basis if we have the man-hours to implement it.

For instance, say your overall plot functions on a 2-month cycle. You are just now implementing an event that involves refugees from a neighboring kingdom swarming into the play area, followed closely by a tribe of marauders that has evicted them. You've already figured out that the next big event will involve an invasion by the players into giant territories to stop their impending threat. During the two-month refugee/pursuit event, many different things can happen. The players may, as expected, kill every giant they see, and at the end of the two month period, the local nobles rally and exhort the players to go kick some giant ass. However, maybe the players are particularly brutal, and kill the refugees, which might lead to a temporary truce with the giants who can assume the players are on *their* side. The players may fail to deal with the giants, and some towns and such may suffer as a result. The players may be trying to fight the giants, but the fluid "frontier border" of giant influence is at a standstill. Different servers can have very different versions of the event, but somehow they all have to lead into the next development.

The key here is to always have a contingency plan, and to be able to make one up on the fly if something really strange happens. This is not unlike the normal refereeing of an open-ended plot, except it's not truly open-ended. You *must* have all game worlds coincide at the end of the cycle. Looking at this as a graph, you start with a point (the event), then branching lines into various possible continuations of the event based on player action, then a reconvergence with rationales in place to bring the players back into line. The preceding example might look like this, if you happen to use bad web tables in lieu of graphs:

EVENT Refugees enter play area, followed by pursuing giants.			
POSSIBILITY Players kill the giants and save the refugees.	POSSIBILITY Players kill the refugees.	POSSIBILITY Players are overwhelmed by the giants.	POSSIBILITY Players are deadlocked with the giants.
RESULT Refugees are grateful and swear fealty to the local monarch, etc.	RESULT Giants figure the players are of a like temperament and cease major hostilities.	RESULT Giants have pretty much the run of the land in all but the most well-defended areas.	RESULT The frontier of conflict stays pretty much where it is. Neither side gains ground.
CONTINGENCY Monarch declares that the players should go kill the giants before they can mass another assault.	CONTINGENCY Monarch decides he doesn't trust the giants and decides to pre-emptively attack them before they can betray the monarch.	CONTINGENCY Panicked monarch pleads with the players to go strike at the giant homeland while it's relatively undefended to get the giants the hell out	CONTINGENCY Monarch is worried by the drain on resources and lives, and asks adventurous players to sneak into the giants' homeland via a newly

		of the play area.	discovered passage to strike a decisive blow.
EVENT Players gain entry to the giants' homeland to attack them.			

If successfully implemented, a contingency web like this can give the players a real sense of consequence and accomplishment, rather than the feeling they're just being railroaded into the next chapter. You will also be far less likely to hear players complain when you have to pull a deus ex machina to kill the Herald Crystal because you didn't plan for it.

7.9 Dungeon Design

Good dungeon design is not unlike decent FPS level design. There are a number of technical and fun factors to be considered, like resting areas, hazards, range of visibility, camping spots, etc. However, to be believable, a dungeon or similar construct must also be logical and explainable to the most nitpicky of players (whom you will never really satisfy anyway, but you can do better than the competition).

First, realize that the dungeon is the most overused and hackneyed device in all of gaming. They can be lots of fun, but after a while the smart players will start to wonder, "Where did all these dungeons come from and why is this bizarre array of monsters living in it?" Once they figure this out, they will start to notice that the dungeon lacks basic necessities like storage, food preparation areas, sanitation, etc. This kills any immersiveness they might have felt on their first exploration, and reduces your construction to a running joke amongst fantasy gamers.

One thing to keep in mind is that you have to explain why all these dungeons are lying around everywhere. Excavation is a very labor-intensive and expensive process, and most intelligent creatures won't go to the trouble of building a dungeon unless they have a good reason. Nocturnal creatures may build them for the same reason diurnal beings use artificial light sources: so they can keep being productive when they would otherwise have to be sleeping. Extremely rich and powerful beings may in fact excavate underground for storage, detention, emergency shelters/escapes, or to expand living areas in places that are difficult to build aboveground, like a castle on top of a craggy hill that's already gone as high as it can practically go. Other creatures may take up residence in abandoned excavations like tunnels, mines, or natural cave complexes. Keeping in mind the purpose and origin of complexes like dungeons can go a long way toward making them believable.

Another obvious thing to do is to just not have so many damn dungeons everywhere. An aboveground complex like a fort, town, or castle can be just as enjoyable as an underground complex, and be far more believable. If your lore allows for a very old civilization that left a bunch of buildings lying around, why should an itinerant group of intelligent monsters bother to build something new when they could just move in? Why would they go to all the trouble of mining through solid rock when it's easier to build wattle huts with a palisade? Just use your head.

8 PvP

8.1 PK or NPK

The first widely popular MMORPG, Ultima Online, had no PK switch when it was released. Players could freely attack each other outside of designated guard zones. This single fact and its consequences caused more player complaints and indignation than any other. The two that followed, Everquest and Asheron's Call, had a sort of kludgy system for generally disallowing PvP combat unless one consented to it. Even UO eventually set up a xerox copy of their continent with no PvP allowed, and it became very popular. Does this mean that PvP is inherently destructive to the gaming experience? I don't believe so.

The disallowing of PvP combat in games is implemented for one simple reason: to try and control people's tendencies to act like dickheads. This is the intent of PK switch, and it fails miserably. An immutable law of the universe is that dickheads will be dickheads, using whatever tools are granted them. Another law that applies to online gaming is that anonymity makes one foolhardy, and therefore more likely to be a dickhead. If they cannot kill other players, they will try and nab their loot, or spam them with harassing messages, or lead monsters into them when they aren't ready, or whatever else is conceivably possible. If there is an NPK switch, there's not much you can do about this except reply in kind, squelch disagreeable messages, or allow the offender to force you from the area (if he doesn't follow you).

An open PK system (no switch, PvP allowed) has some very big advantages:

- Realism
- An incentive for polite interaction
- Player-driven subplots

It has another advantage too, namely the possibility of implementing the thief as a viable character option. A thief in a world of non-PK's is stupid, as thievery is almost exclusively a PvP activity.

The question is, do these advantages outweigh the tendencies of players to want to kill each other whenever possible? You cannot answer this question until you've resolved some other aspects of your game system:

- Player power scope
- Justice system
- Keeping players interested with activities other than murdering each other

Player power scope is covered elsewhere, but to paraphrase, you cannot have a realistic and meaningful PvP system in a game where the potential difference in power between two player characters is too great. If the scope of player power is limited sufficiently, then a more experienced player character may have a great advantage over an inexperienced player character, but it's within the scope of reason. Without this limitation, conflicts tend to be analogous to a fight between Godzilla and a houseplant. This is another good reason to avoid a level-based system, by the way. Level based systems are very difficult to control in terms of player character potential, and inevitably some chowderhead down the road is going to raise your maximum level attainable, if you've even implemented one in the first place, worsening the problem.

A working justice system is missing from any of the big three MMORPG's, and the UO version, the most detailed, doesn't work. The fact that it doesn't work is made more reprehensible by the fact that they flouted realism to implement it. The goal of your justice system has to be the preventing of wanton violent crimes with appropriate sanctions, while not utterly destroying the game of the person who chooses to follow a life of crime. The justice system proposed elsewhere attempts to accomplish this with the added benefit of believability: commit a crime serious enough, and riders come out to

apprehend you, whom you can avoid, fight, or submit to. It's a reasonable expectation of any intelligent person playing a criminal that some day the cops will be after him, and thus this system is (hopefully) more palatable than something artificial and arbitrary like stat loss.

Maintaining player interest is, of course, probably *the* single most important aspect of your entire design philosophy. If nobody is interested, why should they play? The content design team *must* work extremely hard to give the players an expansive range of interesting activities to pursue. One common reason that people become PK in the first place is that one day they looked at the options offered them by the game and said, "I'm *bored*." Prevent this occurrence at all costs.

Of course, for some players the *only* thing that is interesting is killing other players. You can either deny this avenue of action for them with an NPK policy (losing these customers and giving up the advantages of a PK switch), allow it to happen (entailing hours on hours of work to make sure the game environment is not dictated by this faction for everyone else), or try some kludgy middle ground with a PK switch. I think the PK switch is a horrible artifice. You still give up the realism, politeness factor, and player subplots you do with a strict NPK policy, while at the same time making your balance and creative decisions 50 times more difficult. It's almost impossible to do something radical to alter the play of the NPK faction without utterly destroying something for the PK faction, and vice versa. Assume you are one or the other and go from there.

8.2 Advantages and Drawbacks of a Fully PvP+ System

If it's possible to attack another player in whatever game you are playing, someone will do it sooner rather than later. In a pen and paper game, this is moderated by the GM, who either allows the attack because it furthers the plot or is in character, or else kicks the attacking player out of the group. The MMORPG has, at best, highly limited human moderation of player activity, and rightly so: any subjective decision by a GM is usually criticized as being unfair, and many time the accusation is correct. Therefore, no matter how intricate your justice system is and how well it works, at some point someone will attack someone else who isn't interested in being attacked. This is a double-edged sword.

The negatives of a fully PvP system are obvious. PvP presents opportunities for gamewreckers and dickheads to harass other players without thought to how this affects the game as a whole. Because there is no immunity, players will out of necessity tend to build characters optimized for PvP combat, like the guy in UO who won't leave his house to walk through the woods until he is a 4x GM combatant. Large groups of PK's can dominate smaller, less organized groups of adventurers very successfully, destroying the avenue of exploration those players are probably trying to check out.

On the other hand, PvP+ systems are realistic: there is no force field that prevents real world people from punching each other in the face. PvP+ systems give an incentive for players to work as groups, as opposed to the large-scale single player game that AC and EQ have become. And correctly played killers and outlaws contribute to the ongoing plot of the game with little additional work from the game's content team. Certainly those who were involved in the "Kynn Goes Crazy and Takes Over Arwic" subplot in early AC final were on the whole more interested in that than the vague "official" plot being pushed at the time by the actual game.

8.3 The Hard Life of the Outlaw

As stated previously, in early UO Dread Lords ruled. This was not only because there was no effective justice system to countermand their actions, but because the game really had no way whatsoever to make their life harder than that of an adventurer. The most important advantage shared by the murderer and the more benign player was that the murderer had access to a house which was lockable, in which he could store everything he needed (or didn't need), and barring a breakin, that stuff remained his even if he was killed.

Once again realism rules here. A known multiple murderer does not have a nice house in the burbs containing all the property he strips from his victims. He does not have access to city services. He is hunted more or less actively by the police department if they have a clue as to his whereabouts. A dark ages brigand (and there were a lot of them) lived like a nomad, crashing for a while in an abandoned farm or some similar shelter, and did not have huge piles of footlockers with every conceivable item locked securely therein. Take away this sense of security and profitability, and you bring the murderer onto a new level of realism that helps to discourage casual gamer PK's from this lifestyle, and helps to define the lifestyle of the player who really does want to live the spartan existence of the outlaw.

At this moment, I can hear the shouting from many PK's who have grown used to the cushy lifestyle afforded them by the existing game systems. "What do you mean we can't have a secure house? No place to store my 6 million suits of plate I got off chumps this week? You suck!" Yes I mean all of that. Here are the basic concepts of the "realistic criminal" model:

A criminal cannot expect the protection of the lord whose laws he is violating. Let's assume in our system that player-built housing exists within the patrol radius of the local monarch's men. This is usually 20 miles from the city center effectively, and maybe a little more for farms and outlying residences, but these places will not be patrolled as heavily by the local constabulary. However, within the monarch's zone of influence, there *are* patrols and rangers and such who enforce the law of the land and would certainly know if a wanted criminal was setting up housekeeping nearby. A small army of men would converge on the residence and apprehend the criminal, seizing his land and property in the bargain.

A criminal's home, if he has one, is therefore always away from the local lord's sphere of influence. If you have a good enough system for player construction (a real-time system based on relevant skills, instead of just buying a deed), a criminal might indeed build himself a cabin somewhere deep in the forest. He may store his gear there semi-securely, hire guards to protect it, and perhaps even have traps and hidden areas to store it in. However, no system is foolproof, and if someone manages to take his property away, he has no recourse in the form of a police report.

A criminal's property is always endangered. If the property is found or its location known to the magistrate, he will almost certainly order it confiscated. A thief who steals from a criminal's house is free from sanctions, except being hunted down by the injured party. This is one reason that a real-life bandit who was unusually resourceful often had a number of caches lying in various hidden locations. A smart pirate doesn't bury all his loot in one vulnerable spot.

These considerations have a number of impacts on the criminal lifestyle. Since hoarding is extremely difficult for a criminal, if not impossible, it ceases to be a very attractive motive for attacking other players. The fact that a criminal has no legal recourse to being attacked or burglarized himself means that suspicion will be higher between criminals, as it usually is. A criminal who wishes to accumulate wealth through the sale of stolen or looted items will have to resort to dealing his goods on the black market, which always buys low and sells high. And a criminal who is dependent on resources only civilization can provide, like the knowledge stored in the city's magical arts college, is going to have to be extremely clever and resourceful to get what he needs to continue growing in power.

However, all is not lost for the would-be murderer-baron. Assuming your system is robust enough to support it, it's possible that a well-organized and charismatic criminal can establish a fiefdom without the consent of the local duke (or whatever). The aspiring crimelord finds a place where he is unlikely to be discovered for a while, and commences construction of a central stronghold like a moat house, or moves into an abandoned (or overthrown) existing structure. From here he can convince peasants and such to move in and pay him taxes if the services he offers are arguably better than what they had before. (Peasants are always looking for a better deal.) Over time, he may acquire a small fiefdom and a supporting army of soldiers and brigands to defend it. The local duke will no doubt be incensed at this, and begin to send demands of tribute, which the player may decline. If this happens, the duke

will start sending forces in to take the land (and its tax base) by force. Depending on how these battles go, the player may be overthrown, or become a client state of the duke (through negotiation), or defeat these attackers so completely that the duke decides not to pursue the matter. Oddly enough, this ultimate victory for the crimelord now makes *him* the center of government for his zone of control. This is not an uncommon way for a kingdom to be established historically.

8.4 Thieves That Work

Thievery is certainly a PvP concept. There can be provisions made for stealing from "monsters" and NPC's, but then what's the point of being a thief when you can just kill them? The ability to steal items and coin from other players is what people have in mind when they think of the profession of "rogue," not some guy telling dirty jokes at the tavern and going along on a very occasional mission to pick a lock. Many people like the idea of being a rogue of some sort, but to make the profession really viable, you need the ability to steal. Because stealing is a hostile act that begs for retribution, you must allow PvP to allow people to even think they can be thieves.

Thievery from citizens of a governed region would certainly be considered criminal by the government. Less criminal than murder, perhaps, but still deserving of some points on their record, and the risk of arrest. Like murder, the amount added to the criminal point total can be influenced by factors like the value of the item stolen and the social status of the victim. The number of criminal points accrued through thievery need to be considerably less than those earned for murder, as thievery is more quickly forgotten (reflected by a quicker drop in criminal points to the degree that the character is no longer actively hunted). This needs to be compensated for by the idea that as soon as a crime is committed and a hue and cry is raised, there is a certain period of time where the aldermen will be running around actively looking for the offender within the area. The thief can run from the area and escape, hide from the police, or be caught. If he's not caught within a certain timeframe, he can then go about his business, with maybe a small chance of being recognized by a bored alderman on patrol.

In addition, the number of criminal points a thief earns can be directly modified by whether or not he is a member in good standing of the local thieves' guild, if there is one. The thieves' guild maintains safety for its members through a combination of intimidation and bribery of public officials. It also extracts protection money from local merchants in exchange for freedom from harassment. The influence of the thieves' guild can protect its members from prosecution to a certain degree, as reflected by a reduction in criminal points earned by stealing (though it will not save him if he is caught in the act). This is extremely valuable for the city thief. However, thieves' guilds tend to extract huge dues from its members, and the amount a thief "donates" to the guildmaster every week can influence the amount of legal protection he can expect to receive. Guild thieves are also barred from robbing people and places who are paid up in their protection money, and doing so is grounds for expulsion and a severe beating at least. Non-guild thieves, while technically "free" to rob anyone they like, accrue many many more criminal points and are subsequently more actively pursued by the police... not to mention the thieves' guild, which dislikes outsiders horning in on their territory.

Assuming that the justice system of retribution against thieves is in place, how can thieves be given the powers and abilities they expect to have without ruining the fun of other players? The first way is to make thief skill checks into contested rolls, opposed by a value possessed by the target character. Picking a pocket is a good example. Instead of a generic "pickpocket" check, the difficulty of the action is opposed by a skill, attribute, or combination, like "(Perception + Awareness + 50) / 3" or whatever. The skills and attributes in question should be ones that would naturally be higher for more experienced characters, who would presumably be more inviting, richer targets. Whether the attempt to steal is successful or not, there must be another check to see whether anyone noticed the attempt. This is a complex calculation, as bystanders would also get a chance to detect the pickpocketing, but obviously it's harder to steal from someone alone on the street than it is in a crowded subway train. One possible formula involves calculating a chance to detect pickpocketing within a radius of 5 yards calculated in a contested roll as above, and divide this chance to detect for any passive observers (i.e. not the guy being robbed) by a factor based on the population density within that 5 yards, as there are

more distractions. This gets very kludgy and system bogging though, and there may be more elegant solutions. The point here is to allow a chance of thievery to succeed, but make it very difficult in general. Also, the chance of spotting an unsuccessful attempt at pickpocketing and recognizing it as such should be considerably lower than spotting a successful snag. A moderately experienced thief may miss the right opportunity to bump his mark several times, but that doesn't mean he gets the cops called on him every time he thinks about it.

House looting is another popular activity for MMORPG thieves. If it is allowed, it is extremely powerful by virtue of the fact that the people who own the house (and its contents) are technically nonexistent most of the time. For the sake of simplicity, you can simply outlaw house looting within the effective range of the town guard, the "city proper." This is the area that is regularly patrolled by aldermen and/or soldiers, and housing and taxation should be high in exchange for the privilege of living in these areas.

As you move further from the center of government influence, the house thief has more chances to ply his trade as patrols and such become less frequent. If NPC houses are lootable, this isn't much of a problem, as the NPC can always be nearby with a pitchfork at least, and the average peasant doesn't have much in the way of valuables anyway. The player house, though, is far more vulnerable due to the fact that its owners don't exist much of the time. To compensate, the system can allow for stronger and better security systems on the house (pick-resistant locks, barred doors, etc.), hired guards, animals trained to attack invaders, hidden creches where valuables are kept, and maybe even traps for the unwary intruder, plus the chance that a patrolling ranger may happen to come by as the thief is climbing through the window. These devices are effective deterrents to thieves, as the typical house thief is wearing light leather at best and might carry a stiletto, and should be intimidated by a reasonably strong guard with a poleaxe, but there may be a chance to circumvent these systems.

If a house is looted, the law will take interest. An investigator may come out to the house if the player's social importance (modified by possible bribes) is high enough, and snoop around. Middle ages forensic science wasn't especially advanced, however, and the property is probably lost, sold by the thief to his fence at low prices. However, even if there is no proof of wrongdoing, criminal points should still apply to the house looter to reflect the strength of rumor and suspicion... a black box of sorts to insure that the criminal never gets away completely free of consequence.

Note that house looting by force, i.e. charging in, killing the guards and the dogs, breaking down the door, and carrying everything away on horses, is far more noticeable, and subject to discovery, by investigating officials. Criminal points accrued for this sort of thing are considerably higher than for a stealthy breakin, just as murder rates above pickpocketing.

Other functions of the rogue, including picking locks in enemy strongholds, finding traps in a dungeon, etc. etc., are not really part of the criminal profession, and are outside the scope of this section, as it deals with the integration of the thief as an antisocial factor. These non-criminal functions and their import are almost completely dependent on producing enough content to make them viable.

8.5 Justice Systems for Persistent Worlds

There are two forms of required justice systems in any roleplaying game, paper or computer based. One is the control of problem players whose only purpose in the game is to ruin the experience for others. The second is the retribution due a character who is in the role of a criminal. The first issue can only be dealt with by careful GM scrutiny and penalties like removing the player from the game for a while, or permanent expulsion. This is a human judgment call, and not within the scope of an actual game system, so here we deal only with the second part.

A justice system in the sense of criminal activity is especially necessary in a world with no artifice to prevent PvP combat. The reason that players get annoyed with a purely PK+ world is that there are no effective systems as of yet to countermand wanton murder. For a very long time, UO was firmly in

the hands of the Dread Lords, and later silly artifices were introduced like statloss and such which only contributed to macroing off murder counts and other forms of system exploitation to avoid the consequences of criminal activity. There is no system at all on Darktide in Asheron's Call to sanction killers, and the only defense there is to be tougher than the other guy, or have lots of friends. Neither system is satisfactory, although the Darktide system fails spectacularly when one considers the enormous disparity in power between potential combatants, as opposed to the maximum player potential in UO. The real problem with both systems is that for the most part, justice is up to players to mete out, and this *never* works. Would-be policemen are not logged in 24/7 as they are in real life, and there are too many opportunities for the criminal to escape notice altogether. This is also the reason why houses in UO used to be so eminently lootable: 99% of the time, there is nobody home at all.

Trying to figure out how to deal with criminals in a realistic game system is pretty much like trying to deal with any other theoretical problem: look at the real-life analogue. If a couple of murderers are killing and robbing the locals around the duke's holdings, he will eventually dispatch some rangers to deal with the problem. So the logical response in an MMORPG to the presence of a known criminal is to dispatch groups of NPC cops to hunt him down. Ideally, they don't simply teleport out of nowhere a la UO superguards, but actively track the character through the countryside. There would even be the possibility for players to become errant deputies: "Say Ranger, what are you doing?"... "We seek the wanted brigand AzzMasta!" This also provides the criminal with the possibility of evading justice if he can get out of the area, although if he comes back he will still be wanted. He can also attack the rangers, possibly with help, but attacking a local alderman is the game equivalent of being a cop killer, and sets one up for more stringent penalties, and consequently, more people out for his head.

The degree of the crime (and the number of them committed) can figure into how determined the cops are to get the criminal. Assign each criminal act a value in points. Murder would figure high, heinous murder (killing someone who is effectively defenseless, maybe) would count higher, killing a town official would almost certainly be considered particularly grave. Variable points can be added for the social status of the victim(s), assuming you have a social status system. More people get mad if you knock off a popular local hero than if you mug a beggar. The total number of criminal points you have determines how often you are recognized by a patrolling ranger, whether or not a posse is sent after you, and other things like that. A guy who attacked and killed another adventurer because he was insulted would certainly be wanted, but a mass murderer would have half the patrols out for his head, and in big numbers too. Criminal points can be alleviated by time (very slowly), doing good works for the community, and being caught.

Of course, once the criminal is cornered, then what? The most common response for a murderer was execution, but this was not solely out of a sense of eye-for-eye: it was to protect the public from his deprivations. If you have a world with even limited permadeath, being killed once doesn't really put you out of circulation very effectively unless it's you are fresh out of resurrections, and instant permadeath as the penalty for a crime is unduly harsh on a player who may be actually contributing to the lore of the land by roleplaying a true villain, or even some poor schmuck who made a mistake. Imprisonment, therefore, is a must-have when considering a logical justice system. The character languishes in jail for a certain amount of real time before it can be actively played again, unable to do anything, and at the end of this prison term, the character will probably be killed publically by the local headsman and his (known) property confiscated, just to show that the baron is tough on crime. These penalties may be reduced somewhat by a number of factors, including the criminal's social standing (good boy from a good family who turned bad), bribery, membership in an influential organization, or even just giving up peacefully when the police surround you. Conclusion of the punishment term results in a certain loss of criminal points, always with a cap to prevent total absolution after a career killer is arrested once, but allowing for the possibility to actually "repay one's debt to society." If the character is still loaded down with enough criminal points to be arrested on sight, he may be released into the woods outside the city borders, a pretty clear message.

8.6 Justice System Problems with the Computer Referee

The computer makes a terrible judge. Subjective decision regarding things like intent are beyond the scope of the standard computer today. One might be able to get a pretty good simulation of subjective decisionmaking through incredibly complicated heuristic routines, but the processing power required for these decisions many times during the course of a day, plus the added workload of running a game server itself, are way beyond the means of the modern game server. Three generations from now, such computing power may be financially viable for the MMORPG administrator, but not right now.

This means that the implementation of even the most basic justice system, say the one proposed here which recognizes only murder, theft, and tax evasion, is a massive undertaking. Just getting the server to understand the meaning of "aggression" can be extremely tricky. The Ultima Online system, the only one in production right now, is extremely complicated and prone to failure, and the only things it can recognize via flags are aggression (first attack) and "free to attack" status via criminality, i.e. someone who robs you is fair game thereafter. The computer cannot recognize subjective defenses for aggression like verbal goading, harassment, and other abstract ideas.

I am still in favor of the implementation of a limited justice system as a tool for behavioral consequence, flawed though a computer justice system may be. The law is not perfect in real life, either. All one can do is watch to see how the inventive players are exploiting the system and patch it as best you can. Having no justice system in a world that demands it (i.e. PvP+) leaves you with player-imposed justice, which is even worse, and inevitably you have a weak version of feudalism (at best) or anarchy. Anarchy precludes almost any realistic attempt at an overall plot, and at this point you would be better served just running a server for Tribes, Quake, Starcraft, or other games specifically made for multiplayer PvP.

8.7 Justice System Example

Basic sample Justice System criminal point values and consequences, using time scales outlined elsewhere in this document (6 to 1 game to real world). This system can be more easily applied to a pen and paper system, like most things that are worthwhile in RPG's.

8.7.1 Penalties Table

These are general guidelines for criminal points accrued by the criminal. The exact point penalties can be influenced by factors like the social status of the victim, amount of property stolen, etc.

<i>Criminal Act</i>	<i>Points</i>
Attempted tax evasion	Fine
Attempted smuggling	Fine + confiscation
Attempted smuggling of a controlled substance	Fine + confiscation + 10-30
Pickpocketing while a member in good standing of a Thieves' Guild	5-10
Pickpocketing without Thieves' Guild protection	25-50
Theft from a house while a member in good standing of a Thieves' Guild	15-50
Theft from a house without Thieves' Guild protection	75-250
Murder, victim with low social standing	100-250
Murder, victim with moderate social standing	200-500
Murder, victim is a civil servant or noble	500-1000

8.7.2 Pursuit Table

Any crime committed that is immediately noticed by an authority will result in that authority pursuing the criminal for a short period of time, within that authority's patrol range. Chance to be recognized by authorities applies in situations where the criminal is within sight distance of an authority who is not actively pursuing that person, but may recognize him from sketches, briefings, etc. Dedicated patrols are looking specifically for that individual. Criminals may generally only be apprehended within the zone of control of the government in question, although particularly heinous criminals (10000+ points) may merit the dispatch of bounty hunters beyond this range.

<i>Criminal Point Total</i>	<i>Intensity of Pursuit</i>
1-50	No pursuit, will not be caught unless caught in the act.
51-100	No pursuit, will not be caught unless caught in the act.
101-200	No active search, chance to be recognized by authorities = (points/5)%.
201-400	Dispatch of a squad of dedicated aldermen/rangers to track by mundane means, chance to be recognized by other authorities = (points/5)%, not to exceed 60%.
401-1000	Dispatch of several squads who will converge on the target if his location becomes known, chance to be recognized by other authorities = 75%.
1001-2500	Dispatch of several <i>large</i> squads who will converge on the target if his location becomes known, chance to be recognized by other authorities = 85%.
2501+	Dispatch of a very large force with the assistance of a magical finder who uses sympathetic magic to track the target within a certain radius, chance to be recognized by other authorities = 95%.

8.7.3 Penalty Table

Penalties may seem light given the state of dark ages justice historically (poach a deer, get killed for it), but an attempt is made to err on the side of compassion for the player. Executions are based on the base 5 resurrection before permadeath model. In no case should a player character get permadeath through criminal penalties (i.e. no executions past 0 remaining resurrections). The permadeath risk for the career murderer lies in the idea that once a murderer is caught, it is possible that player characters will hunt him down in an effort to permakill the murderer, and such a criminal with no remaining resurrections will probably be spending a certain amount of time getting resurrections back through waiting, evil temple devotions, etc. This is considered a reasonably effective way to protect society from the deprivations of the murderer, at least for a while.

Also note that penalties for levels of criminals who are not normally pursued by the authorities (1-50 points) are presented in case the inept criminal is caught in the act.

"Known property" includes all monies and items in a criminal's personal possession, bank accounts and storage areas within the government's zone of control, and legal houses within this zone. "Hidden property" includes wilderness shacks and such outside the government's direct influence, hidden caches, etc.

Incarceration does not allow for any beneficial offline activity.

<i>Criminal Point Total</i>	<i>Incarceration Time</i>	<i>Material Penalties</i>	<i>Execution Chance</i>

1-50	Limited (0.5-1 RW hours)	Possible fine.	N/A
51-100	1 working day (3 RW hours)	Fine.	N/A
101-200	(points/100) days (4-8 RW hours)	Fine, confiscation of a small amount of known property.	(points/20)%.
201-400	(points/80) days (8.5-20 RW hours)	Fine, confiscation of a variable amount of known property.	(points/15)%.
401-1000	(points/50) days (32-80 RW hours)	Fine, confiscation of known property, token search for hidden property.	(points/10)%.
1001-2500	(points/50) days (80-200 RW hours)	Fine, confiscation of known property, reasonable search for hidden property.	1 execution minimum, chance for second execution = (points/25)%.
2501+	(points/50) days (200+ RW hours)	Fine, confiscation of known property, fervent search for hidden property with magical assistance, possible persecution of known associates (other characters on that account).	2 executions minimum, chance for third execution = (points/100)%, chance for fourth execution = (points/100)-100%, etc.

8.7.4 Sentence Mitigation Table

These are some optional ideas to allow players to mitigate their sentences. Since the computer is a lousy judge, you cannot really have an effective trial, and must assume the computer *knows* the criminal is guilty. However, the player might have a chance to reduce his penalties through bribery and good connections (social status). Note that social status will not be much of a mitigating factor for a career criminal, since his status would presumably keep dropping, but it may be a factor if a normally noble player is arrested for a criminal act. The degree of bribery required to get a particular effect depends on the status of the game economy, of course.

<i>Mitigating Factor</i>	<i>General Penalty Modifiers</i>	<i>Execution Modifier</i>
Criminal turns himself in or surrenders peacefully to authorities	Incarceration time reduced by 25-50%, slightly reduced material penalties.	Reduce mandatory executions by 1, variable execution chances reduced by 50%.
Bribery	Variable decrease in incarceration time based on amount of bribe. No reduction of material penalties through bribery.	Variable execution modifier based on amount of bribe. No possible elimination of mandatory executions through bribery (1001+ criminal points).
Social status	Variable reduction in incarceration time and/or material penalties based on social status.	Variable execution modifier and possible reduction of mandatory execution penalties based on social status.

8.7.5 Criminal Point Reduction Table

Obviously, activities such as "Community Service" and "Bribery by the Criminal" are only possible if the character can reasonably perform these activities, i.e. he is at 100 or fewer criminal points (thus not actively pursued), or manages to make his way to City Hall or wherever without being spotted and arrested by the authorities.

<i>Activity/Event</i>	<i>Criminal Point Reduction</i>
Normal Passage of Time	-1 point per game day, online or offline (4 hours RW time).
Community Service as Offline Activity	-2 additional points per offline game day (4 hours RW time). Note that a "Community Service" offline activity selection allows for no concurrent skill gains or benefits of any kind aside from criminal point reduction.
Bribery by the Criminal	Variable reduction in criminal points based on amount of bribe.
Bribery by Others On Behalf of the Criminal	Variable reduction in criminal points based on amount of bribe, about 1/3 as effective as a bribe made by the criminal himself.
Influence of Social Status	Variable reduction in criminal points based on amount of Social Status lost in exchange for this consideration. Character may not go below a "normal" social status (zero) to reduce criminal points.
Being Incarcerated as Punishment	50% of total criminal points at the time of capture.
Being Executed as Punishment (any number of executions)	10% of total criminal points at the time of capture.
Being Fined or Losing Property as Punishment	1-15% of total criminal points at the time of capture, based on the amount of money/property taken.

8.7.6 Release from Incarceration

Characters who are released from incarceration who remain at over 100 criminal points obviously should not be re-released within the government's zone of control, lest they simply be arrested again on the spot. Such characters are released just outside the borders of the civilization he has offended, at a semi-random point (to discourage criminal camping).

If a criminal wishes, there may be an option for further voluntary criminal point reduction in the form of bribes made by others or community service. During the character's incarceration, other characters may make bribes in the normal fashion to reduce his post-incarceration criminal point total. The criminal may also opt to volunteer for community service as an offline activity immediately following his release. If this option is taken, the criminal's period of incarceration is immediately followed by a period of community service that may not be interrupted (i.e. the character is unavailable for logon) until his criminal point total is reduced to 100 or less. Of course, this may take a very long time, but it allows for the possible social redemption of the criminal if he wishes it.

8.8 Getting Around the "Good Mule" Syndrome

A common tool for almost everyone but the most hard-core of evil roleplaying types is the use of an alternate character slot as the "good guy." This is the character that can go into town for supplies, sell off loot, run a vendor... basically get around the sanctions and limitations imposed by the game on the criminal character. It was not uncommon in UO for the 5 slots on an account to consist of one powerful good guy, 1 or 2 powerful murderers, and the rest mules of some sort or another. This works because there is nothing connecting the good character and the evil character that is recognizable by other players, or the game engine.

To combat this, it may be necessary to implement a "known associates" black box system. This means that all characters on an account are considered to be known to hang out with each other to some degree. This has little meaning for the player who has all good (or all evil) characters who do things to justify their legal status, but an account with one crazed murderer and a few good guys will find that the good guys are being scrutinized by the local constabulary. The noble Robin Glenn may find that his petitions for a title and holdings are being ignored and he's not getting such a good deal

from the local merchants because he is a known associate of the wanted killer Grom. If Robin already had a title and lands when Grom began his spree, his worthiness will be called into question, and he may be stripped of his position, since he obviously can't even keep his friends in line, and how can he be trusted to govern a fief?

The known associates system requires a somewhat complex system of reputation, fame and criminality, and server manipulation of these elements while the characters are offline (or done right at login, at the same time that the "offline activity" stuff is taken care of). Its purpose is to encourage players who wish to be evil in their personas to own up to the consequences of this choice, rather than circumventing them with a stupid game mechanic.

9 Magic

9.1 Why Magic Destroys Perfectly Good Games

"Magic" in a gaming system is defined as a sort of black box device which is implemented for story purposes, with little or no logical explanation as to why it's there or how it works. It's been taken for granted in the overtired fantasy milieu that there is this force called "magic" that allows weird things to happen for no reason, but it also exists in other environments. In cyberpunk we have nanites that can make laser beams shoot out of someone's ass. In spacefaring campaigns there are transporter devices and beam weapons that somehow track accurately at distances of 12 light years, and ship drives that allow FTL travel with crackpot explanations. Psionics are another popular form of magic in RPG settings, where psis go beyond seeing whether the card has a picture of a star or a box to perform feats like unpowered flight and making Green Lantern-type energy manifestations.

In any form, the inclusion of magic into a game system invariably *breaks* all sense of balance. This is because any black box device by definition has no real-world analogue, or even a well-thought out theoretical basis, and is thus devoid of any observational data for the hapless designer wishing to implement it. All he has are some ideas he can steal from other writers who also lacked hard data, combined with some crap he might pull out of thin air. Therefore, the effects of magic are limited to whatever arbitrary values the designer wishes to assign to various effects, within the constraints of practical technology if the game is computer-based. Because game content designers tend to be largely incapable of approaching realistic balance even within the arena of hand weaponry, it comes as no surprise that any magic system that appears is rife with game-destroying balance errors from day one.

This problem, like almost every problem related to RPG design, becomes exponentially greater in the realm of the MMORPG. Any error on the side of weakness in magic will be publically and loudly addressed over the web and NNTP, while any error on the side of overpowering advantage will be exploited to hell and back by the ruthless client until (and if) the problem is "fixed" with a patch, followed by more whining.

Another problem is the way that magic is approached by a typical RPG designer. Having resigned himself to the idea that magic just makes things happen for no good reason, he cannot stop himself from turning magic into an all-inclusive overwhelming technological advantage. Magic becomes air superiority, rifled barrels, and force fields, all in one package. Small wonder then that almost every character in any MMORPG is considered gimped unless he is a mage to some extent.

The only solution for this is constant vigilance and hardcore balancing. It also helps if your basic game design and mechanics are modeled around a no-magic environment, so you can at least get that part right before you try to balance in a magic system. Remember that magic wasn't included in the original Dungeons and Dragons until *Eldritch Wizardry*. This was the correct approach. The ensuing generic and boring magic system was a result of a lack of imagination, not a flaw in the overall design process.

9.2 Keeping Magic Magical

One of the big reasons that "magic" is always exploited heavily in any RPG setting is that *anyone* can be a mage. If the mage is obviously the super-class that can turn the laws of nature (and game balance) upside-down, why would you *not* want to be a mage? This is particularly true in the great crucible of RPG flaws, the MMORPG. At least in a pen and paper campaign, you can assign arbitrary penalties for characters who wish to use magery (i.e. GURPS' "Magical Aptitude" and "Unusual

Background" costs), and in a smaller scale CRPG you can toss out the assumption that most of the world is *not* made up of mages, and therefore it's okay for the protagonist party to include a few. But in an MMORPG, everyone wants to be a mage, and there's no way under the current models to say they can't be. Asheron's Call made a go of it with their research system and spell economy, but ignored the axiom that all people suck, and so before beta was out formulae were everywhere, nobody cared about the economy anymore, and they were back in the same boat.

In the MMORPG, it's hard to justify a rarity of mages to your players. They all pay the same subscription fee, don't they? Say that magic is only available to a tiny number of people who "have the gift," determined randomly. Now the guy with the account that doesn't include someone "with the gift" is hosed. Either that or he just keeps rerolling and killing off characters until he winds up with a mage, and then you have the same situation as before, except now people are yelling at you on forums about your "stupid time-wasting system."

The common response to this problem is to simply assume that magic *will* be used by anyone who wants to be a mage, and try to keep it on par with the other class types available. This destroys the allure of "magic" and turns it into just another way of killing the bad guy. If magic is better for killing the bad guy than an arrow, then archers will just be mages instead. Magic becomes a commonplace activity, and the use of magic is just another tool, no different from an axe or a plow. To me, this is tragic.

A game that seeks to limit the number of players who choose to be mages often goes down another route that's even stupider: the weakening of mages to the point of nonsurvivability. This is sort of akin to the D&D concept of a mage's life: low level mages can be killed by having someone sneeze on them, and they can cast one pathetically weak spell before they go back to cowering behind the fighters. The tradeoff in D&D is that your mage may eventually become a god on earth if he lives long enough. This is not a consideration in an MMORPG, since (a) you can't really die anyway, and (b) eventually everyone will get to high level. Therefore, the MMORPG version of this is to make the mage weaker at *every* stage. This leads to players dropping their subscriptions, and more importantly, nobody being a mage.

There is *one* solution that seems possible to me, a way to make mages relatively uncommon while not hamstringing them into comas. It involves requiring a quest of sorts in order to become a mage in the first place, i.e. *you cannot start as a mage*. I thought of this while drawing up design specs for a radically modified Sphere shard that I never finished, and as of yet I haven't had a better idea, so here it is, in summary:

All characters start out roughly the same, with no magic. No magic is ever available to them with the possible exception of minor shamanistic magic (healing, far sight, maybe watering the plants). In order to become a "mage," a character has to undertake a very dangerous quest which he is expected to die on. If he manages to make it through the quest, he winds up at the place where you become a mage (secret mage academy, alternate dimension full of alien mages, underground genetics lab, radioactive meteorite, whatever). Assuming the character still wants to become a mage, he can... he loses a bunch of his other stats and such, maybe the ability to use certain kinds of gear, etc. etc., in effect trading in his moderately high-level character for a weak low-level mage.

Of course, this is not a solution in itself: magic *still* has to be balanced to some degree, you have to ensure that mages can't immediately go from mewling newbie to god overnight, and ideally the quest to get mage status should be dynamic so a quick and easy solution can't be spammed all over the web one day, ruining the intent of the exercise. However, if successfully implemented and maintained, this system might, for the first time, allow someone with a mage in an MMORPG feel like he has actually accomplished something, as opposed to hitting the right buttons at creation time.

9.3 Getting Beyond Spellcasting

The most excellent Uncle Figgy presents outlines on 7 types of possible magic in an RPG setting:

- Ritual Magic, done in ceremonies and usually by groups
- Sympathetic Magic, using elements similar to the effect you want to produce as components
- Contagious Magic, requiring a bit of the target object to produce an effect
- Alchemy, proto-chemistry mixed with mysticism
- Spellcasting, the standard wave your hands in the air game magic
- Intuitive Magic, the creation of effects from little more than force of will
- Inborn Magic, inherent powers particular to the individual

The limitations of information technology and the dynamics of selling games preclude the use of Intuitive and Inborn magic. Intuitive magic is too random and too hard to simulate using formulae a computer can understand, and Inborn magic is too unfair to impose on a game full of subscribers who will be pissed if their account contains only magicians with terrible abilities, or no magicians at all. Of the remaining five categories, only Alchemy and Spellcasting have been implemented into the traditional RPG model, because they are the easiest to implement: you do this, and this happens, all the time. But can the others be implemented in such a way as to enrich the game experience? Possibly. Of the remaining choices, though Ritual Magic remains the most promising for a smooth gaming experience.

Sympathetic Magic can be considered more of a magic system modifier than a system in itself. However, it winds up being a modifier to material component requirements. This can help out senseless reagent systems, but usually it turns out to be more trouble than it's worth to try and get enough of the right kind of feather so you can cast your Winged Travel spell. If used, use it sparingly so as not to bog down the magic system.

Contagious Magic is not really useful for a computer-based RPG. You would need to implement countless new mechanisms for doing things like ripping some hair out of the giant's head so you could curse him, stealing a used hankie from another player to put into your voodoo doll, etc. However, it can be a useful black box for the developer when dealing with criminals. Assume that once the criminal is imprisoned, a lock of his hair (or whatever) is taken. If he is wanted again for a crime serious enough to merit the expense, the local law enforcement agency may employ the services of a "finder" who uses the cell sample to dowse for the criminal and help track him down.

Ritual magic brings to mind a ring of druids chanting for a few hours to make it rain. It's a little broader than this, actually, and one can include ideas like Ceremonial magic into the category. From a real-time game perspective, it doesn't seem very exciting to sit around and watch your avatar chant for a long time. However, the possibility of ritual magic can add a new dimension to mass combat against NPC's with ritual magicians. "Wow these guys are tough today... holy crap, there's a ring of priests back there behind them chanting! Flank them!" Ritual magic can also be used to expand the possibilities of noncombat activities, like consecration/desecration of specific sites, divination, or just making the crops grow better.

Using ritual magic to modify many "buffs" that currently exist as short casting time spells, you modify their use and the mechanics of player dynamics. For example, a blessing that temporarily raises a character's abilities by a small amount can require a ritual, instead of merely popping off a quick spell when you see the critter charging your way. Blessing has to be premeditated. In this way, a player ritual mage becomes immensely valuable to a group on a mission. Ritual magic is also apropos for various support and preparation magics useful in battle. Need a mist to limit sight range to cripple the enemy's archer superiority? Have someone call the Dragon's Breath for you. Need to stop critical bleeding long enough to get the guy to a medical specialist? Ritual. The long casting times of rituals are perfect for such effects, and is a perfect way to limit the personal power of mages in straight combat while exploring new avenues of ability.

It should be noted that item enchantment magics should also be performed as rituals, with significant investments of power in many cases. However, in order to prevent unbalancing effects and economic problems, these enchantments should be (a) limited in power, and possibly further limited by the ability of the wielder, and (b) of limited duration. No one should have to tell you what happens when you allow characters to manufacture permanently enchanted weapons without hindrance.

9.4 Magic and Warfare (Shadwolf)

Obviously, real life battles did not involve magic, but stop to think what would have happened if they did. Archery replaced javelins because it was more effective. Guns replaced arrows because they worked better. A fireball seems a whole lot more effective to me than an arrow. Why then would you have this older technology around when it was obsolete? The answer to this is that mages are rare and anyone can learn to use a bow. Unless you have some way of keeping every single player from making some kind of mage variant, however, this argument fails. How about the ability to summon creatures behind the enemy flank? Or the ability to feed an entire army with magically summoned food? If magic is to be used in any sort of viable yet interesting world, it must be limited.

In personal combat, this is doubly so. Asheron's Call annoys a lot of people, but it is the logical progression of magic as a technology. If chainmail is lighter and stronger than brigandine, everyone who needs armor will try to buy that. If all armor is not as effective as a buffed robe, everybody will be a mage. If there is any one combination that is superior, everyone will use that combination. Add to this the idea of a world in which the most profitable job is killing things and there is an endless supply of stuff to kill (stuff that doesn't get any smarter), then this is what people will do.

9.5 The RPG Mage vs. the Literary Mage

Some people like the idea of being a mage in a game because they want to be Gandalf, Merlin, or any number of horrible fantasy pulp wizards that come to mind. However, they ignore the literary role of the wizard in these books (except for the really horrible ones). Gandalf used magic maybe a total of what, 4 times during Lord of the Rings? Merlin barely used any at all in any iteration of the Arthur legends. They did not run around tossing fireballs at everything that came their way.

The literary mage is often more plot device than protagonist. There are a tiny handful of them in the world, and although everyone somehow knows that wizards are insanely powerful and are not good targets for a random mugging, the wizards don't just run out and take over the world with their powers. Generally, the literary wizard is a source of bizarre arcane knowledge, moral and ethical guidance, and the occasional ass-saving spell. Yet because of the Grandfather Clause of Stupidity and the lack of imagination on the part of the average gamer, almost all player character RPG mages are just fighters in different clothing, using magic missiles instead of arrows, warding spells instead of armor, and summoned daemons instead of hired mercenaries. Ho hum.

The literary mage, unfortunately, is not a very good model for any but the most hard-core roleplayer to choose as an avatar. People have ever-shortening attention spans, and are not entranced by the idea of subscribing to a game so that their wizard can spend all his time in the library. Given the fact that most so-called computer RPG's are almost entirely about killing things, they want to be out there killing things. They also don't want to hang around with a party of fighters who do all the killing, providing motherly ethical advice all the time and firing off one spell every week. In order to cater to this class of mage player, computer RPG developers (and pen and paper RPG writers) have turned the mage from a bizarre mystical figure full of arcane wisdom to a lightning-lobbing siege engine.

Unfortunately, due to the precedent set by all RPG's since the original Dungeons and Dragons, this is what everyone expects from the mage. They want to be more powerful than everyone else on the planet, of course, but they conveniently forget that literary mages have strange restrictions placed on them. They remember, for instance, that Gandalf can kill a mighty Balron single-handedly, but they

ignore the fact that he was not allowed to harm lesser creatures like goblins, who were part of the "natural order." They remember that Merlin was the secret power behind the throne of Camelot, but they forget that he really didn't do all that much aside from facilitating destiny (furthering the plot). Wanting every possible advantage and none of the drawbacks of a character type is part and parcel for the typical gamer, even more so for the computer gamer, since the computer is an abysmal tool for any concern outside powerleveling. The result is the cookie cutter generic mage, the character that people will play if fireballs do more damage than arrows.

Is there any way to return the mage to his literary role in an MMORPG setting? probably not at first glance. The only ways to make the MMORPG mage more akin to the sagelike literary mage are:

- Make all mages NPC plot devices, no player mages.
- Impose insane restrictions on player mages, in which case nobody will want to play them.
- There are some middle roads as well, but they also fail to be satisfactory to the typical fast food gamer mentality:
- Assign penalties to the use of any sort of major magic, as in paradox points a la White Wolf's unplayable *Mage* pen and paper system
- Increase the need for lore and people who can research it, which is rendered useless by people who simply make "mage mules" to find out information that then gets posted on a message board
- Use the "like affects like" system utilized by some fantasy novelists, dictating that magical powers are only truly effective against magical entities

The last point may seem like it has some viability, but in practice it fails horribly. Using like affects like, a mage would be able to comfortably beat monsters with magical abilities, but would not do very well against, say, a mundane barbarian. The problem is that the no-magic fighter is better than the mage against primarily magical opponents because he himself isn't affected by magic as strongly! You can try to tweak this a lot to make it work, but the best case scenario effectively segregates your world's hunting areas, i.e. mages go here, fighters go here, and now your world is effectively smaller for all players. This also tends to lead to bad loot situations where a fighter may be well-suited to go through a small pack of goblins, but the daemon the mage is killing is going to have the cool loot.

In conclusion, unless you completely rule out player character mages in any uncontrolled environment like an MMORPG, you will never approach an analogue to a heroic myth mage. The only thing you can do is try to limit player accessibility to magical powers and then work on balancing the class types, so at least the mages will be relatively uncommon.

10Comments

Immediately following the publication of the treatise, I got a lot of comments. Some were actually helpful. Here I've collected some of the comments I found particularly helpful, or funny, or uh whatever.

10.1 WORLD DOMINATION THROUGH INSANE WRITING

email

Subject: design theory
Date: Mon, 14 May 2001 01:18:35 -0300
From: Jared Barkan <jrad2001@mindspring.com>
To: musashi@ranter.net

for the life of me, howard , i cant understand why someone as talented ,intelligent,obsessive-compulsive, with both the specific abilities needed (outstanding fiction- content and prose,strategic thinking, familiarity with computers, beyond-all-reason-knowledge of all types of role-playing games-computer and pen &paper, historical knowledge, understanding of all types of martial arts-weapons use,the ability to function for days on end subsisting off of junk food,an encylopedic knowledge of every hong kong kung-fu action flick ever made- probably not necessary but it sure don't hurt, -and plentyof other things i'm unaware of,) and an interest bordering on the psychotic, not too mention way too much time on his hands- does not simply hunker down and..... WRITE HIS OWN GODDAMNED GAME !! already..

honestly, i agree with just about everything you've ever said (in your website) about the game industry and games themselves, and it seems obvious to me that the industry is basically still in its infancy, eventually it will grow up (in about forty or fifty years) and true works of art will start popping up more and more, all probably using your manifesto as, well, a manifesto... but, shit man! i dont want to have to wait forty or fifty years !! do you? -- i mean, if you're too goddamned lazy too write your own game at least get a job as a story outliner or something for some mid-level game company, use your strategic nohow to wangle your way to the top and then HIRE people to write good games for you , while you control everything from your hidden fortress orbiting at 200 miles above the earth.

or whatever.

jrad

I like this idea. Not the game design thing, but the orbiting headquarters. That would rock.

10.2 BIBLICAL PROPORTIONS

<http://nerfed.dnsalias.net/>

Mu's Latest Update 5/14/2001 10:44:35 AM (Quixotic)

Over at mu.ranter.net Mu has often posted what I consider to be brilliant rants and stories in the past. He recently posted a brilliant essay/rant/rambling collection of documents on MMORPG design. Everyone should find it interesting and it covers almost all major issues associated with MMORPGs. The only evil I see in the article is that with over 340k of text anyone can find that one line that supports whatever crusade they are on at the time. Much like the bible you can grab a single line of text and use it to support just about any argument you can make. Anyway its a good read and might

be a bit of an eye opener for people that complain about this or that problem in AC or EQ or UO as it points out the general problems in designing and supporting a MMORPG. Good stuff.

The same goes for the opposite... I've seen some comments in IRC about how retarded a game would be based on one section of it, like realistic grain systems. Like players would be dealing with that every day! It's a DESIGN concern! Ah well, to people who like to nitpick on little sections, I can always say, "But this document is holistic! You have to read EVERYTHING! Muahahahaha!" That usually gets them to quiet down and run away.

10.3 I WILL MILK THIS FOR ALL IT'S WORTH

MUD-Dev listserv

From : "Koster, Raph" <rkoster@verant.com>
To : "mud-dev@kanga.nu" <mud-dev@kanga.nu>
Subject : [MUD-Dev] Musashi's Unbelievably Long Rantings
Date : Mon, 14 May 2001 15:55:41 -0700

This ia massive tome on online game design written by a player of the big three MMORPGs. I haven't read the whole thing (it's 340K of text, JC, so if you wanna post it, post it in pieces!) but what I did read seemed remarkably commonsensical.

<http://mu.ranter.net/theory/index.html>

-Raph

So he didn't read the whole thing, and the high point was "remarkably commonsensical." Who cares! Raph Koster plugged me to MUD-Dev! I am fully prepared to misrepresent this as glowing praise from Raph Koster if it will secure me a cushy position somewhere.

10.4 NONCOMBAT SKILLS TO BE DONE VIA LARP

email

Subject: Brain Pop concerning non-combat skills
Date: Mon, 14 May 2001 16:15:51 -0500
From: "J" W" <zifnab25@hotmail.com>
To: musashi@ranter.net

I just read the first section of your massive exposay and so far so good. When I got to the part about non-killing skills, I got a bit depressed though. Logically, it doesn't seem possible to include a system where players can use the "Detective" skill to solve crimes. Computers just haven't come that far. I doubt they ever will, short of a game that plays itself (weee!).

Anyway, something occured to me while reading this. Why have non-killer skills at all? I don't play D&D because I want to pretend I'm a genius. I've already got that covered... riiiiight. Anyway, I play D&D because I want to be the 250 lbs golath muscle man. I want to be the mystical mage who can throw fireballs with a thought. I don't need a stat for 'fast talking' or 'innovation' because that's one thing I, the player myself, can supply.

So why include it in the RPG? Why not base the entire game around skills you can't do - spellcasting, sword swinging, leatherworking - and let the players themselves supply the rest? Assuming you can fulfill the rest of your little vision, you don't need a 'diplomacy' skill to convince "King Roxor" to make peace. Situations where a player needs social or mental agility will emerge whether or not the designers program them in. This isn't to say a developer shouldn't create the "Puzzle Maze" dungeon, it just leaves those skills - the ones the players themselves provide - to the players themselves.

Just a thought. Please e-mail me back what you think, even if it's just a few words. It just makes me feel better. Thanks.

Just my two cents,
Zifnab

Subject: Re: Brain Pop concerning non-combat skills
Date: Mon, 14 May 2001 18:29:39 -0400
From: Musashi <musashi@ranter.net>
To: J W <zifnab25@hotmail.com>

Well yes, but then you wind up "faking it" a lot. If you want to say that the player supplies deductive skills and reasoning and so forth, why have an intelligence attribute? Granted there are some things you can't and shouldn't ever try to automate, but certain skills like language translation, alchemy, etc. etc. can be reflected in a character's abilities. If all of these skills are left in the hands of players, (1) they will all be eventually solved via web spoilers, and (2) everyone will be huge freaking combat monsters, since there is no tradeoff for intellectual skills. :P

Subject: Re: Brain Pop concerning non-combat skills
Date: Tue, 15 May 2001 16:14:31 -0500
From: "J W" <zifnab25@hotmail.com>
To: musashi@ranter.net

Not necessarily. True, if you leave the 'alchemy' skill purely up to the player, spoiler sites will ruin everything really fast, but when it comes to skills like 'Etiquette' you're dealing with something the players can supply. Also, certain puzzles and problems can be randomized, either by location or by their answers and difficulties. If you create the "Rubix Cube" room and scramble the cube a different way each time, a player can't simply check a cheat site to solve it.

As for reasoning and deduction, GMs can create 'Clue' type mysteries or scavenger hunts (assuming that want to devote that much time to a quest) to reward ingenious players without detracting from the allure of a high Intelligence score to offer the mage classes more mana points or higher spell levels. Perhaps a higher Intelligence would offer competing players hints as to the answer to riddles or mysteries.

In so many other games - the Final Fantasy series for instance - an exciting mini-game or side quest is always fun to play. These side games - puzzles, quizzes, and tests of mental agility - can offer other avenues of experience gain outside the traditional kill stuff method. Perhaps the apprentice blacksmith must defeat his master in a game of checkers before he can advance (silly example I know). The only real requirement to making these challenges effective would be to randomize them sufficiently, making cheat sites impractical or impossible.

Unfortunately, non-combat skills can't be based on 'Practice makes perfect' because practice in point-click-repeat situations is boring. But since most non-combat classes aren't very good at combat, they must be offered other alternatives. This is the best I can devise.

Subject: Re: Brain Pop concerning non-combat skills
Date: Tue, 15 May 2001 18:33:46 -0400
From: Musashi <musashi@ranter.net>
To: J W <zifnab25@hotmail.com>

Well, whether or not you leave skills up to players, if there is a set method for doing something it will be spoiled at some point. A certain amount of your formulae and procedures might be dynamic (a small number of them, for practicality's sake), but eventually everyone will know you combine otter's noses with an infusion of Tabasco to make a healing potion. You can kludge an "etiquette" system in regards to PC and NPC if, say, you have a good parsing routine and a skill check against "Charisma" or whatever. The player may say all the right things, but if he's a rampant murderer with a huge rotting sore on his nose and an ass-scratching habit, the NPC may not care. :P

I have a personal bias against the overuse of the puzzle in games. I firmly believe that this is one of the worst ideas in the "adventure game" genre. It reminds me of all those Sierra games where to get out of jail, you wait for the jailer to lock the door, then slide a newspaper under it, and hit the door with a brick. The revulsion factor at having to do silly puzzles to accomplish normal things is somewhat minimized in a single player once-through game, but in a persistent RPG? Gack.

The idea of the "detective quest" appeals to me a lot, and as a GM I tend to drop those in despite the average player's lousy powers of deduction. However, for these more than any other kind of quest, they have to be dynamic, and more annoyingly, single-time. One player solves it, the quest is over. This increases your overhead tremendously if this is your primary quest type.

Side games are always important. It's another little detail that makes games more "real" and immersive.

The problem with noncombat skill advancement is that if you make the process too annoyingly repetitive, everyone will hate you and eventually be forced to macro to avoid point and click insanity. However, a "pay for training" deal doesn't work either, as you just get funded by a richer character. Giving all starting "craftsmen" maximum or highly advanced skills from the start (an option on some private Sphere shards) cheapens the idea of becoming an accomplished artisan, and then you find yourself doing ridiculous things like requiring 300 skill to cook easter eggs. A combination of use-based skill gain and questing (for craftsmen!) to achieve skill may be one of the only viable options.

Making noncombat/craft skills interesting, i.e. "fun" to players is insanely difficult. I'm open to suggestions.

10.5 SHORTCHANGING PARTHIAN HORSE ARCHERS

email

Subject: The lone archer myth
Date: Mon, 14 May 2001 16:35:40 -0500
From: "Stephen Bulla" <stephenbulla@hotmail.com>
To: musashi@ranter.net

Myamoto Musashi,

I have thoroughly enjoyed the whole game design section. A couple of minor technicalities/gripes come to mind however...

In the section on archery, it is mentioned that only the Mongols ever mastered the art of horse archery. This form of combat is actually far more ancient. One of the best examples of ancient horse archery

would have to be the Parthians, who gave the Roman Legions ALOT of trouble! The Persians also used horse archers, as did several other ancient civilizations.

I realize that the whole Robin Hood story may be nothing more than a romantic myth, but the hit and run tactics of Robin's men (by no means a large force) were sound. I believe that a lone archer/adventurer with some training in the blade could very well have existed, ambushing enemies from the cover of the trees with blade or bow. Many peasants in medieval Europe hunted game despite the penalties imposed for poaching (usually death). They commonly used a bow as their weapon of choice for hunting. Obviously, these were not highly trained military units such as English or Welsh longbowmen, but just ordinary folks who at least knew the rudiments of firing a bow. Some people are inarguably "naturals" and seem to require less training than others in any given pursuit. Certainly such people would be rare, but you must remember that in most RPGs, the heroes (player characters) are NOT the norm of society. That ranger or archer character you create is not an average Joe, but a n extremely rare breed: an adventurer. I believe that the "lone archer" character, be he ranger or whatever... is perfectly acceptable and plausible in a fantasy rpg world.

Thanks for the great series of articles and don't take the above as an attack on your viewpoint. Merely some observations and thoughts!

Steve

B.

Subject: Re: The lone archer myth
Date: Mon, 14 May 2001 18:33:36 -0400
From: Musashi <musashi@ranter.net>
To: Stephen Bulla <stephenbulla@hotmail.com>

Actually, I referred to the Mongols and the dynastic Japanese. True, horse archery was used by earlier cultures, but they had inferior bow technology, and the rules of the game are very different when your enemy's protection levels are limited to leather, wood and bronze. (Japanese Do were primarily lamellar and laquered wood with metal pieces, but their craftsmanship made them at least the equal of chain, and superior to brigandine, of the iron age.) Since the typical fantasy RPG deals with iron/early steel techniques, the bows of the Parthians would have encountered trouble. It's a valid example that could be explained, but by the time I finished the document I was including so many footnotes about, "Yes, this culture did this, but that was because of this thing" that I couldn't take it anymore. :P

Since I cannot seem to leave this thing alone, added a parenthetical statement about pre-iron archery. :P

10.6 MY AGENT IS A DAMNED VULPINE

<http://sb.xrgaming.net/>

Musashi shows how it's done. Mister "hurt me deeply" Howard Collins, aka Musashi, has published his Unbelievably Long and Disjointed Ramblings About RPG Design. It's all in here. The one that's nearest and dearest to my heart is Item Decay.

"Any open-ended virtual economy that does not provide for the decay and loss of items will always overflow. This is also related to uncontrolled cash inflation, since a society of millionaires has no incentive to try and sell off their collections of expensive crap if they don't have to pay taxes on them. Insufficient item decay equals powerful item inflation equals player power inflation, and you eventually have a situation where most of your content becomes a joke, as your entire playerbase is outfitted in

top of the line stuff handed down by hoarding patrons. Naturally, they'll still hoard the stuff they don't even use, taxing your server and your patience.

In any case, it is to the advantage of the game world to allow for the destruction and loss of anything. Items can be assigned hit points and similar ratings, and (if your engine really rocks) variable damage types. A fireball might recrystallize a piece of steel, but say goodbye to that apron. Things may be repairable to a degree, but every time you patch something up, you weaken it. Eventually, you need to outfit yourself again, discarding your ruined gear, and helping the economy along in the process."

Apparently Turbine was thinking about printing it all out and slapping an "AC2" label on it just to mess with people at E3.

Someone give Mu a job, kthx.

-J. 12:06 AM MST (May 15, 2001)

Thank God for J. and his ability to not only see my nefarious hidden purpose, but to shamelessly plug it. I'm sick of ramen and industrial-sized cans of chocolate pudding. Help me J. You're my only hope.

STEALING STUFF AND DUELING SYSTEMS

email

Subject: treatise on game design
Date: Tue, 15 May 2001 17:18:55 +0100
From: "Dave Shepherd" <dshepherd@gearhouse.com>
To: <musashi@ranter.net>

Musashi,

Just finished reading most of your article on game design. The section on food was a little long winded ;), but the general section and PvP section were very good.

Your idea of known associates is insightful for multiple character servers. However there will be some who purchase multiple accounts or a husband and wife team working together - so perhaps you could tag stolen goods and flag fences or receivers.

Regarding flagging 'aggression' status to permit penalty free PvP, you are correct, it would be virtually impossible to properly code for anything other than a simple 'first attack' method. One way that occurred to me could be an option to challenge someone, or warn someone that they were being aggressive. For example, spamming chat or proximity could be dealt with by the aggressee issuing a timer to the aggressor to either not talk for the next 5 minutes or leave the location. Failure to comply could flag an aggression status.

However, there are problems with this, e.g. powergamer runs in to his favourite spawn, finding a party of 6 low level characters and issues a challenge on all of them, forcing them to leave - perhaps limit the number of challenges available to a player?

Well, thanks for the opportunity to read your thoughts, you have given me some useful things to think about.

Dave

Subject: Re: treatise on game design
Date: Tue, 15 May 2001 11:33:52 -0400
From: Musashi <musashi@ranter.net>
To: Dave Shepherd <dshepherd@gearhouse.com>

Flagging every item in the game for "ownership" is a gigantic drain on the system. It's the only way to really accurately track things like theft, though, but because it's insanely clock-heavy it can't be done, so some black box methods have to be implemented.

Challenge systems are an idea I had for a bounty hunting system, where if you want to go nab a criminal of sufficient notoriety for a reward, you get a warrant issued. Then when you find the guy, you use the warrant on him as a challenge. The target can then either surrender (mitigating penalties) or fight. Winning over the target initiates capture, and the reward is taken from whatever is confiscated from the criminal to prevent abuse and economic flooding.

10.7 I STOPPED PLAYING AGE OF KINGS TOO SOON

email

Subject: Quick note for you
Date: Tue, 15 May 2001 09:23:07 -0700 (PDT)
From: Jeff Sandler <jeffsandler@yahoo.com>
To: musashi@ranter.net

Hi,

After being tipped-off by Lum, I've been reading your RPG design document and enjoying it.

I'm nowhere near being close to done with it, but thought I'd give you a comment on this page:
<http://mu.ranter.net/theory/balance.html>

I've been with you so far up until you mention the example of the trebuchet in Age of Empires (2). I feel that it's a really poor example, because it is definitely not overpowered. Feel free to peruse the web sites that discuss it (<http://aok.heavengames.com/> and <http://www.mrfixitonline.com/aokHome.asp> are two good places to start) and you'll see that the dominant tactics do not revolve around trebuchets -- especially undefended ones.

Sure, they're the best method to destroy walls/buildings, and their arrival is critical to breaking late-game territorial stalemates. But saying that they excel at being unsupported offensive juggernauts is probably going to cause anyone who's played the game more than a few weeks to shake their head.

I'd also like to state my opinion that Age of Kings (especially post-expansion/rebalancing) was one of the best balanced multiplayer games I've ever played. If it had a fault, it was that perhaps the civilizations didn't differ by *that* much, which I suppose made balancing an easier job.

Heck, if Chet at OMM thinks it's one of the best he's played, that's gotta mean something too, right? :-)

Anyway, I'll get back to enjoying your page.

Thanks,

Jeff

Mu's Unbelievably Long and Disjointed Ramblings About RPG Design

Subject: Re: Quick note for you
Date: Tue, 15 May 2001 11:38:19 -0400
From: Musashi <musashi@ranter.net>
To: Jeff Sandler <jeffsandler@yahoo.com>

The problem with the AoK trebuchet in my experience is that it doesn't act like a real trebuchet. A trebuchet is something the siege force builds on-site, because there's no way to transport it even disassembled. And, if a real trebuchet is attacked by any sort of reasonable force, it stops firing, the engineers are killed or driven off, and the lines cut. This happens immediately. The problem with the AoK trebuchet (besides the fact that it's still one unit) is that you can roll say 24 of them into a town, set them up, and destroy the town, then pack up and move on, all while under attack and unguarded... who cares if you lose a few? :P

Subject: Re: Quick note for you
Date: Tue, 15 May 2001 11:14:39 -0700 (PDT)
From: Jeff Sandler <jeffsandler@yahoo.com>
To: Musashi <musashi@ranter.net>

Heh. Not to let a good point (i.e. nerfing is important) morph into an tangential argument about this one game, but I gotta say I respectfully disagree.

True, they don't behave realistically. (Absolute realism rarely equates to good gameplay, of course)

But I've never seen anyone even come close to doing what you're talking about in a competitive game.

1) They're expensive to make. And can only be made at a castle (an expensive, slow-to-make building that depends on the most limited resource in the game, stone) and slowly-made at that.

2) They're lousy against anything BUT buildings

3) (most importantly) They're quickly roxxered by any non-piercing attack unit. Fully upgraded infantry or cavalry knock them down in mere seconds.

Judging from what you're saying, I think you may have only played the game in environments where opponents let you build up to huge forces relatively unmolested, or where archery is favored above all other tactics. (Perhaps you played before I started; before the game was patched to limit the range of garrisoned town centers?)

In the games I've played (and in the recorded "expert" games I've watched), by the time trebs are available, you've got worse problems on your hands; like champion floods, light cavalry raids, and massed siege (in some civs, like celts/koreans).

Even assuming you've massed 24 trebs, if that's all you have, and I have 24 of any imperial age melee unit, you won't be destroying much of my town. You'll get the buildings on the edge, and then those trebs will get boned, at a price of 200w, 200g each and many minutes of production time. Not a good trade.

Anyways, just thought I'd pass that along. I'd hate to see an RPG designer be reading the excellent points in your article and come across the part about AoE and say "This guy's crazy". :-)

Jeff

PS Not much good on the MMRPG horizon, eh? I was hoping on UO2, because that team seemed to understand a lot of important design points. So much for that. Now, the next gen doesn't look half as promising. I guess I'll end up trying AO, if anything.

Subject: Re: Quick note for you
Date: Tue, 15 May 2001 13:45:12 -0400
From: Musashi <musashi@ranter.net>
To: Jeff Sandler <jeffsandler@yahoo.com>

That's entirely possible... I played AoK pretty much on final, and then found this business about the trebuchet parade and stopped. By the time I quit the big tacs seemed to be either the treb parade, castle rush (building castles in the enemy town and hiding the peasants inside), or the teutonic town hall rush. Maybe it's been fixed. :P

Subject: Re: Quick note for you
Date: Tue, 15 May 2001 11:49:27 -0700 (PDT)
From: Jeff Sandler <jeffsandler@yahoo.com>
To: Musashi <musashi@ranter.net>

That totally explains it. I picked the game up this summer, post-patch.

Ironically, AoK is an excellent example of how a "nerf" patch saved the game. Supposedly, soon after the game was released, the dominant strategy became using town centers as archer bunkers, pushing them into your enemies towns. Teutons excelled at this due to their bonus (and were subsequently informally "banned" from competitive play).

Shortly before releasing the expansion, they patched the game and limited the TC range, among other things (including raising the cost and building time for town centers -- they now cost stone and take as long to build as a castle). This shifted the emphasis from getting a quick castle age and opened up the options of feudal-age warfare.

Patch description: <http://www.ensemblestudios.com/patches.shtml>

Anyways, that 'splains it. Thanks for the reply.

Jeff

Damn. Now I have to install it again.

10.8 PROOF THAT I AM NOT ALONE IN MY MANIA

Subject: The Game Theory
Date: Tue, 15 May 2001 16:40:07 -0700
From: "Colin Glassey" <cglassey@onebox.com>
To: musashi@ranter.net

I enjoyed the write up. As someone who spent some time writing an alternate design of D&D (called Mythrules) I have some comments on magic. Magic, if it is part of society (as opposed to something only demi-gods can wield, in Tolkien's work Gandalf IS a demi-god and Merlin fits the definition as well), fundamentally breaks everything we understand about society.

Take the simple case of magical enchantments. If enchanted weapons could be made, why would anyone develop iron? Magically enchanted stone or wood weapons and tools would be used. Research would go into better spells not better materials. Early iron items were terrible. They were brittle, they rusted, it took centuries of research before iron items could be made better than bronze. The sort of research that wouldn't get done if magic was common.

If magic allowed the transport of people/goods, why would anyone domesticate a horse? Consider the drawbacks of horses: hard to tame, very expensive to feed, and they are dangerous to the riders without a great deal of training. Why bother to build roads OR ocean-worthy ships if you can transport via. magic?

The only book I know of that really attempted to rationally talk about a society in which magic was common was LeGuin's "The Wizard of Earthsea". But even LeGuin didn't pursue the logical outcome of truly widespread magic in the world: stone-age technology.

The worlds of UO, EQ, and AC (high fantasy in general) make no sense from a logical, rational perspective because the effect of wide-spread magic use would be to halt technological development at a very primitive level. As a case study, consider any of the real Earth societies that believe in the power of magic. Look how far they developed technologically...

--

Colin

Glassey

cglassey@onebox.com - email

I firmly believe that there are more people like Colin and myself who will pick apart the absurdity of a world's background bit by bit, forever and ever. Please make us happy.

10.9 WHY PEOPLE THINK I WANT PLAYERS TO BE PEASANT FARMERS

forum

My Comments (some critical) on Mu's Manifesto
by Antagonist posted 5/15/01 7:50:24 PM

(I have a feeling you don't check up on your forums all that much, as Internet forums tend to be breeding grounds for genetical rejects--like me! I figure if I post this wannabe essay on your forum AND e-mail it to you, the chances that you will actually read it should improve . . . slightly.)

Mu,

I disagree with some of your opinions concerning weaponry, armor, and combat in general in online RPGs. Not that my opinion matters to you or anyone reading your forum, but I really appreciated all the work you spent on creating that online RPG development model at no benefit to yourself. Because of your effort, I think it fair that I make an effort to give you feedback on your latest endeavor--if you like it or not. Lucky you.

First, before someone interprets this as a flame, I want to point out that I thought Mu's manifesto was awesome. Mu, I wish there were more ranters on the 'Net like you.

Now, to address the subject of this post: Sure, you make perfect logical sense in terms of what is realistic or not; how someone can't take a game seriously if it's not realistic, and therefore, how a game can't be of true quality if it's not treated seriously on some level. And like any good argumentative prose, you provide counterpoints to your arguments--a common tactic used by competent writers--so the reader will more easily accept your view. (I'm too lazy to look back and

actually find quotes of where you supply counter-arguments, but I'm pretty sure you did, because you always do.) But despite your well-written analyses, I think you're wrong because of one simple reason: reality is not always fun. I think you underestimate the importance of fantasy in a fantasy game. I don't want to play a tactical simulation of some soldier in medieval Europe; I want to play the role of Conan The Barbarian, battling monsters in some high fantasy contrivance of reality. I don't want to worry about eating food or taking shits--heck, I even find weapon deterioration annoying.

I want weapons with different strengths and weaknesses, fabricated or not. I want my kriss-wielding rogue to be as viable as someone's katana-wielding rogue. Is it realistic? No. Do I find entertainment in the choice of using daggers--and a dagger fighting style, be it fabricated or not--over weapons and tactics that would normally be superior in reality? Hell yes. In World War II, I doubt there were many soldiers carrying longswords into battle as their primary means of attack/defense. I'm pretty sure they used guns 'n stuff. Why? Because guns are superior to longswords (if not, the US Military has wasted a lot of money than we think). If a contemporary day MMORPG was ever made using Mu's logic, and "melee weapons" was an available skill along with firearm skills, I would guarantee you there wouldn't be one person using a longsword over an AK-47. Reality = mundanity = boring.

So, someone makes a MMORPG based in a realistic universe--at least concerning weapons and combat--that corresponds to the Middle Ages. In this game, there would be a ton of weapon/armor choices, as humans no doubt created countless usable weapons by the time the Middle Ages rolled around. But obviously, some are more usable--and far superior--than others. What's the fun in, say, all "high level" characters walking around wearing field plate and wielding a katana (assuming they can afford it), because developing a character who is adept at using leather armor and axes is a waste of time? (Obviously, I am not an expert on weapon/armor history like Mu, so that was just an example.) If we base combat and weaponry/armor on reality constrained by the technology of a certain time period, because it's--well, you guessed it--realistic, it wouldn't be very fun, would it? Mu's world wouldn't be any better (or much different) than current graphical MMORPGs; all "high level" characters would be clones of each other, wielding the same weapons and armors and using the same fighting styles due to necessity. I think a good RPG gives players viable options, realistic or not, to compete on a level playing-field through whatever means they want.

I say bastardize all logical assumptions of combat in an effort to make it--*gasp*--fun. I should also note, that no graphical MMORPG--AC probably less so--has actually succeeded in a combat system good enough to justify fucking over rational thought. However, I have played an online RPG that succeeded in this area; the game was a MUD called DragonRealms (DR for short), and the combat system simply r0xx0r3d j00: body location-based combat ("What? That crocodile bit your arm off and now you're going into shock?"), internal and external bleeding (instead of generic HP), maneuverability vs. protection value (depending on their style of fighting, just as many high level "fighter" characters used leather armor over plate), the use of offensive and defensive maneuvers that played off each other ("Perhaps you should've parried before attempting to sweep your opponent's legs with your quarterstaff."), power vs. speed (depending on stance, position, fatigue and state of health, and who knows what other hidden modifiers, daggers would swing at roughly 1/5 the speed of a 2-handed sword), all weapons carried multiple damage-type variables (When appraising a broadsword, it might say: "This broadsword does heavy blunt, massive slashing, and light piercing damage; it is well-balanced and fairly suited to take advantage of the wielder's strength."), etc. Of course, since DR is a text-based game, I would imagine this simplified the matters of implementing such a complex combat system. Was DR perfect? Far from it, but it did a ton of things right; I would still have my subscription if my friends would play it with me.

You know what, Mu, I think you should play DragonRealms. Sure, it has no graphics, but you've always ranted about the importance of gameplay/content over graphics. And if DR has anything, it has gameplay/content. I think it's on the Zone now, and costs 10 bucks a month. Although, DR is not without its flaws. The game is long-running, and therefore the economy is unbalanced; high level characters have an utterly absurd amount of money, while a newbie has next to nothing. The game itself is probably suffering from stagnation, and therefore the community is dying off due to a lack of new content and new blood. Etcetera, etcetera. IMPORTANT NOTE: In my observation, DR's design is very close to what you would consider an ideal online RPG according to your essay. Now's a perfect

time to waste a few hours a week testing out a new game, since nothing else (gaming) is worth the time. What do you have to lose?

Blah. This is starting to sound like a press release. Funny: I don't play the game, nor have any intention to. Chalk it up to nostalgia. Goddammit, I spent nearly 90 minutes writing this crap--talk about a fucking waste. I think I now know how you feel, Mu.

LOLROTOFOLOL Mu is FAGOT!!1!!!!1

--Antagonist

re: My Comments (some critical) on Mu's Manifesto
by Mu posted 5/15/01 8:28:54 PM

Number one, and this is for everyone who thinks that an MMORPG based on this treatise would require humans to take care of every mind-numbing detail associated with everyday life.... the key word in the title is "DESIGN." Not "PLAY." Things like food consumption models and power extension from the crown are factors that make for a believable system from the design phase, but are more or less invisible to the player unless they factor into his life directly in some way. If all you want to do is r0x0r some critters, it doesn't affect you, but I would sure appreciate the fact that the capitol of 20,000 people isn't being supported by 2 farmers who grow pumpkins. Refer to the following sections for more about realism and streamlining for fun:

<http://www.kanga.nu/mirrors/mu.ranter.net/theory/general.html#marktime>

<http://www.kanga.nu/mirrors/mu.ranter.net/theory/economy.html#taxes>

<http://www.kanga.nu/mirrors/mu.ranter.net/theory/writing.html#detail>

As far as being Conan, the option to be a "hero" in an open subscription MMORPG is limited to about 2% of the playerbase maximum. If too many more than this are considered heroic, then they are no longer heroic, they're commonplace. It's like when MMORPG's suck you in with that phrase, "Be a hero!" but they forget to mention that 95% of everyone will be more heroic than you. :P

Now about weapons. Assuming your weapon system is logical, yes you won't have 8 billion kinds of flamboyant blades from 12 cultures, or if you do, some of them will just suck. This does not mean everyone carries the same thing all the time. That's a product of improper balance, where one or two weapons are superior to all others. Refer here:

<http://www.kanga.nu/mirrors/mu.ranter.net/theory/weapons.html#balancing>

Variety in weapons can still be wide if you include some factors nobody ever considers, like where did this weapon come from? A broadsword made by Vikings using pattern welding and a broadsword made by some nimrod with an anvil and no clue are both technically broadswords, but are functionally very different.

The guns and swords "argument" exemplifies how games break down past a certain point. Realistic games about personal combat past a certain level of technology tend to be boring, because (using a typical D&D example) you might have 20 hit points and a sword will do 1-8, but a .30-06 slug will do about 10d6. In this case, the melee weapons become the "ceremonial weapons" that are less effective but around anyway, and people who are interested in actual combat will choose from a variety of guns (depending on legality issues).

Maybe I'll check out DR. :P

re: My Comments (some critical) on Mu's Manifesto
by Dr. Shadwolf posted 5/15/01 8:26:41 PM

You have a point here, but there is more to consider. Ultimately, an RPG is an interactive story. The best sort of comparison therefore is with books. Consider any classic book like "Lord of the Rings." (Actually I have a lot of problems with Tolkien, but for now it will stand as an example). Would it have been as interesting if the book had read like an AC adventure:

"Frodo suddenly snapped back to awareness to find a goblin attacking him. The wretched beast was repeatedly striking him in the head with a twisted club. Frodo paused to examine the goblin for a moment then began digging through his pack. A solid whack from the club brought a rush of blood into his eyes. Luckily he could still make out the blurred contents of the pack well enough to spot the roll of bandages peeking out from under a bundle of 1,000 arrows. He pulled the bandages free and ripped a piece from the end. He slapped the torn bit of cloth to his bloodied head and immediately felt the healing powers flowing through him. As an afterthought he quaffed a stamina elixir. The goblin was beginning to look perturbed at its would be target who seemed uninterested in the constant barrage of blows. The goblin paused while Frodo continued to dig through his pack. When he still failed to respond, the goblin shrugged its shoulders and wandered off in search of a more calorie efficient meal.

At the bottom of his pack, beneath a couple hundred pounds of dried mushrooms, Frodo finally found the bag of rings he was looking for. Unfortunately, he'd forgotten to label them. Oh well. He slid one on too his finger and was immediately shrouded in powerfull protective magics. Useless. Maybe he could fob that off on one of the townies that were constantly begging for patronage. The next ring sent powerful energies crackling up into his brain. He found his head immediately filled with intense knowledge of the fine artistry of swordmaking. That ring was tossed to the ground. After a few more tries he finally found the one true ring. Actually he had three of them for some reason. Maybe he could trade the other two for a good pair of pants. He slipped the ring onto his finger then drew his bow.

Frodo thought for a moment. Was it fire that goblins were vulnerable to, or was it lightening? No matter, fire was universally good against everything. Lets see - two hundred Frost arrows, fifty seven acid arrows, twenty magically enhanced crossbow bolts... He paused for a moment to examine the crossbow bolts. They radiated awesome death magics and the fletchings were the feathers of a magical bird that had not been seen on this world in a thousand years. Why the hell was he carrying this crap? Tossing them aside, he found a bundle of flaming arrows smoldering in the bottom of his pack. Hmmm... there were only a hundred. He'd have to find some itinerant fletcher who was poor enough to be willing to work for cash to make some more.

Knocking the arrow, Frodo looked around for the goblin. It was nowhere to be seen. Suddenly, he was aware of movement somewhere about two hundred meters behind him. He turned around, loosing the arrow halfway through the turn. The arrow looped around and arched toward the oncoming goblin. It caught him in mid stride, ripping his head from his body. Good luck that. Goblins were notorious for their crappy loot, but at least he could clean the head and make a mask from it. Maybe he could trade it for a stuffed nazgul."

Not terribly interesting stuff. Conan the Barbarian, faced with three worthy opponents, moves swiftly to skewer one while keeping the others at bay is good stuff. C0mann99_5 ignores the army of drudges because they aren't worth the effort to kill somehow loses something. Realsim may not always be fun, but too much cinematic crap takes all the punch out of the story line.

Lurking in IRC, I saw a lot of people who were apparently confused, and thought I was proposing that players be concerned with the yield per acre of supercorn while they ran around looking for stuff to do. Never fear, I'm sure eventually people will get the point and start to read more comprehensively,

especially those parts that say things like "the peasantry is pleasantly invisible to the players" and "never force a player to fill out a tax form when you could just have him press a button." Of course, maybe the big honking word "Design" on the first page might tip them off.

10.10 FORGET THAT LAST BIT

forum

I R Tumble
Guild Master
posts: 332
(5/15/01 8:50:47 am)

Stole this from Lum the Mad

Semi-interesting article I found on Lum's site, it is a very long read. Some of the document is very good, some of it is very, very bad; but all in all its an interesting perspective about how one gamer views making games and/or campaigns.

I agreed with about 25% of the total, totally disagreeing with the vast majority of his emphasis on absurd detail and about MMORPGs in general. One of the major factors the author missed was 'GamePlay'. Games are meant to be fun, if players like combat then the game should support and emphasis that. If they like puzzles and riddles, then stress that. Whatever you do, don't screw up game play by having them worry about how many farmers it takes to harvest 7 acres of land (i.e. not fun).

mu.ranter.net/theory/index.html

Segal

Once again, the nefarious subtlety of the word "Design" and admonitions to not burden down the player with mundane drudgery have gone over the pointy heads of the masses. Excuse me for one moment while I increase the word "Design" to 100 point type...

10.11 I FEAR THIS MAY DRIVE DOWN MY POTENTIAL HOURLY RATE

email

Subject: The 'writing' part of your manifesto
Date: Tue, 15 May 2001 18:30:32 -0700
From: "kevin" <kmaginn@iname.com>
To: <musashi@ranter.net>

You wrote:

"There are thousands of starving authors out there writing this kind of stuff. I bet they would be willing to sell such a storyline for far less than it costs to hire a programmer to come up with "There are these infinitely respawning monsters everywhere and the players have to kill them."

Oh yes, we would. As one of the 'starving writers' you mention, I would *love* to sit down with a game's dev team and churn out quests like there was no tomorrow. One-time-only quests. I say this with absolutely no sarcasm, because after playing EQ and AC, I have come to the firm conclusion that

programmer implemented repeatable quests Just Plain Suck. For the reasons you mention, and also for the basic and hideous truth: programmers can't write worth a damn. Vide Everquest.

I think that the only way to implement quests AT ALL in a MMORPG, aside from player driven events, is to have a writing team that does nothing but churn out new, fresh content, and remove old content. Otherwise you end up with EQ's quests, where no matter how many players rescue the monk in Qeynos, he's still lost, 100 yards from the city gates. A travesty, in other words.

And it wouldn't even cost a company very much -- some of us are, in fact, willing to work for peanuts for the chance to do something like this.

My dream job would be to sit around thinking up minor quests, writing their dialogue, plot points, events, and lore, *knowing* that only a handful of players would see any of it, *knowing* that in a week the quest would be taken down, but also knowing that another hundred quests all authored by yours truly would be simultaneously running.

shrug it will never happen, though, as long as companies continue to let their programmers write their content and dictate what can and can't be done. Engineers firmly believe they are supermen who can do anything, and that all you need to be a good writer is a little practice. As someone who slaves away constantly to improve his writing skills, all I can say to the nitwits who write half the MMORPG content these days is: "Learn to spell 'you're' and then we can talk about your supposed writing skills."

-Kevin

In point of fact, Shadwolf wrote that, but I agree with the sentiment.

10.12 TAXES AND DECAY VS. BAND-AID ECONOMY FIXES

email

Subject: A point..
Date: Thu, 17 May 2001 22:57:49 -0500 (CDT)
From: william ralph renner <wrenner@students.uiuc.edu>
To: <musashi@ranter.net>

I was reading your guide on persistent RPG design, and in particular the section on economy and hyperinflation, and in very particular the coin economy. Nicely thorough work.

While on the whole I agree with your ideas regarding Item Decay and Player-Owned Vendors, I think you miss the most desirable option for controlling the amount of raw coinage in the land.

First, why I disagree with your solutions. On balancing a reasonable reward for a given creature, I agree fully, but when it comes to requiring expensive upkeep and taxes, I do not. In Asheron's Call in particular you see the Expensive Upkeep model at its finest: the spell component costs for a practicing mage were astronomical, and the mana charge requirements for warriors no less so. Yet you still see incredible inflation and the general worthlessness of given money. I know, as a warrior, the expense of keeping 16-odd magic items charged and pumping hardly kept me from amassing an awe-inspiring bank account.

You may argue that Asheron's Call did not go far enough, meaning the upkeep costs, but I'd direct your attention to Fallen Age, just into Beta. The repair costs in that game take up 100% and more of any player's given income, rendering the more powerful items completely unuseable. Yes, I understand that a game in Beta with less than 100 people online at peak cannot be used for all-encompassing theories, but it does point out the extreme. The value of the Juno (FA currency) is very, very high.

But never-the-less, players hate the system. They fight, gain experience, but the loot all goes to repairing their gear. There's no progress, financially. If you allow a steady accumulation of coins, inflation will inevitably occur. And if the accumulation is very slow, you get unhappy players -- and this must be avoided at all costs.

Which is the reason why I believe Taxes should be avoided. In real life, Taxation is a black word, and this applies all to well to online worlds. I'm against the idea simply because it involves taking something from the player -- which can cause nothing but ill will. In addition, taxation can only stop inflation if it halts accumulation, but that returns to the lack of progress point I made above. Above all else, the player should be made to feel that he or she has accomplished something.

The problem lies, as I see it, in pleasing the player while sucking coins out of the system in the same proportion as they are poured in. This, I think, is best done by exploiting the concept of Rarity.

You say, on an entirely different topic, that it you cannot say "There are no more than 1000 enchanted cheese slicers in the world at any given time." and in an open system such as you outlined this is quite true. But take, for example a system in which a GM sells 5 Swords of Nuclear Vengeance to the playerbase. Five -- and Five only. Barring duping, there will never be more than five on a server.

Imagine! Owning a sword (and an amazing sword!) of which there are only five in existence. Imagine being one of an elite group of nuclear-sword swingers, ravaging the land with radioactive death. What would such a sword be worth to a player? Its value is inestimable. I've seen systems similar to this on classical MUDs and the answer is easy: a player will happily shell out his entire bank account and liquidate his muled assests for a single item.

Why? Well, for one, the sword is really good, but that is not the point. The point is the item is *unique*, and this is not restricted to raw killing potential. Look at Ultima Online, and the huge sums that never-to-be-seen-again items drew (in player-player economy; this was never exploited by the developers, to my knowledge). A castle for your black dye pot -- a 'useless' item from a pure min/maxing point of view!

A system such as this involves a great deal of developer time, with the crafting of the rare items and such, but is the single best system to curtail inflation that I can think of. Cutting creature loot and imposing repair fees help, but you MUST take money away from the players, and they HAVE to like you for doing it.

Do you see my point?

- Bill Renner

Subject: Re: A point..
Date: Fri, 18 May 2001 00:05:02 -0400
From: Musashi <musashi@ranter.net>
To: william ralph renner <wrenner@students.uiuc.edu>

The AC example didn't work, because the lack of decay and ability to hoard insane amounts of goods on mules at no penalty still made for rapid hyperinflation (in conjunction with an unbalanced economic model, i.e. the current trend of buying cheap components in Mayo and recalling to AB to sell them).

Cash inflation is tied directly to item inflation. With no items ever leaving the world, combined with player hoarding instincts, those things you drop on your mules "because you might need them someday" never ever leave, until you either trade them with another player (which keeps it in circ) or sell them (cash inflation).

I don't play Fallen Age (beta), but a 100% upkeep cost sounds like something which still needs to be tweaked. Repair can be a little expensive, or even free if the player has apropos skills. The import of decay lies more in the idea that someday the item will disappear, not that it will sit on your character forever and just be a nuisance cash drain.

As far as requiring players to become steadily richer at a high rate to stay happy, this is a fault of the system, as pointed out in other places in the doc. Just like keeping players happy who don't want to just bash monsters all day, player enjoyment can be derived from other content if it is interesting and varied enough. The question is, will such content please players who are inured to the kill-loot-be rich model of the current MMORPG? Certainly not in all cases. However, the mere presence of this as yet untested system opens doors into a new player base... the players that are sick to death of the old kill and loot routine.

Take a look at what is happening now with AC. Players loooooooved the new patch, with weightless money and massive enrichment because of it. However, some players quit immediately, seeing it as a surrender on the idea of the cash economy. Expect more to follow. In AC, you can now make about 1 million pyreals in half an hour, then use the cash to get XP, shards, keys, pretty much anything you want to. It may seem great and "fun" at first, but it wears thin rather quickly.

Taxation takes things away from players, yes, just like any other game mechanism. Should players never have to expend bandages, or components, or spend money on a nifty set of armor? This creates the WORST kind of inflation. Your fear of taxes and item degradation seems to be founded on the belief that it will impoverish all players without hope of future solvency, but this is not true. You can still become rich. You will simply pay upkeep to maintain gigantic property. The payoff to the player from taxation can also be made obvious, i.e. you are paying a lot of taxes to live in this huge city, but hell look at the services you get!

A sword of nuclear vengeance should never make it into the game at all, unless it is properly zero balanced with a bunch of disadvantages. Overpowered items always break the game... there has never been an instance where this was not true, in any group larger than say a pen and paper group of 5, and even then it tends to get destructive.

It seems your point is to avoid taxation and replace it with cool looking carrots for players to dump their money into. This does not work in practice, and only seems to work if the economy is already mangled. Black dye tubs and such sold for unbelievable sums of cash in UO simply because players had unbelievable sums of cash on hand, and nothing to spend it on. (You couldn't place a castle anyway.) The virtue of taxes is that even if something horrible does happen to make your economy inflate and players have oodles of money, graduated taxes will bring the system back into some semblance of normality over a period of months (or years, or whatever).

As far as making players like you for taking their stuff away, never happen. The only players who will appreciate something like a tax system are those who can view the game from a design perspective. The rest (the monty haulists) will never be happy anyway. Best you can do for them is work on your content.

Mu's Unbelievably Long and Disjointed Ramblings About RPG Design

Subject: point..
Date: Fri, 18 May 2001 01:12:44 -0500 (CDT)
From: william ralph renner <wrenner@students.uiuc.edu>
To: Musashi <musashi@ranter.net>

Don't get me wrong. Item decay is probably the single most important part of a healthy economy, but unless it sucks 100% of your hunting profits, there is still accumulation, though it may be slow. This accumulation is the real cause of inflation, and as such is the main target.

I have to defend my AC example, as I think I miscommunicated the point a little. The mana charge and component drains are *all about* item decay. My armor, weapons, and such worked for a set amount of time, then stopped. I then had to expend money to repair them. This amount is almost universally less than the average income.. so follows accumulation, so follows inflation. AC in and of itself has a disastrous economy, further undermined by the now-weightless currency, and is nothing but a model of what NOT to do.

On Taxation.. I stand by my assessment. I don't believe you should ever take something away from the player and not give anything in return, and as far as the Social Services you mentioned, people are far too conditioned by both stand-alone RPGs and current online games to take kindly to this change. While I hate to dredge up this old saw.. 'Its only a game,' and I think there are certain facets of real-life that just should not be ported to the game environment. Taxation, while useful, can be replaced by other schemes.

On the Sword of Nuclear Vengeance.. I think you overestimate either the scale of what I propose or the damage a handful of items can do. I said introduce 5 super-weapons in my example, and by God I mean it. An average server (be it AC, UO, or EQ) has around 1500 people online at peak, of which it has been estimated there are 7500 total accounts (x5 peak population). Introduce 5 super-weapons into the server, and at very most there is a .06% chance that at any given time the wielder of the aforementioned weapon will be fighting the monster you, the GM, are currently balancing. This is negligible, and can be utterly discounted from balance considerations.

It scales, you understand. Sell 5 super-swords for an ungodly amount of currency. Sell 50 semi-super-swords for a semi-ungodly amount of money. Sell an unlimited amount (for a limited time) of merely pretty weapons for substantial amounts of money. They will sell, and the only limit to the amount of money sucked out of the system in this manner is the developer's creativity and the limits of the engine.

The key, you see, is the Rareness of an item. Look at Pre-Patch-GSA in Asheron's Call. The Black Dye Tubs in UO. That, if nothing else, shows how much players are willing to shell out for a rare item -- and the fact the given currency is broken only alters the scale of the transaction. Not the motive.

You mention that the system I outlined does not work in practice... but I'd be very interested to know of any games who have even tried. I based this off the Festival system from the Simutronic's Games (text MUDs) Dragonrealms and Gemstone III. Their purpose in those games are more for entertainment, but can just as easily be turned to economy regulation. It is from those games that I realized that the player will buy ANYTHING, so long as he knows it will become unavailable shortly. Great profit can be made in player-player trades this way.

In this manner the player base will vigorously give us their accumulated wealth, boosting the value of the currency (my goal all along) and contributing to a healthy economy.

-

Bill

Renner

Mu's Unbelievably Long and Disjointed Ramblings About RPG Design

Subject: Re: A point..
Date: Fri, 18 May 2001 10:39:47 -0400
From: Musashi <musashi@ranter.net>
To: william ralph renner <wrenner@students.uiuc.edu>

The problem is that comps + charges do not equal decay, only upkeep. Granted this is similar, but it only affects the direct cash side of the economy, which is still broken because the object side of the economy is still whacked. Mindless inflation inevitably follows because there is no reason to ever get rid of the stuff you are wearing (esp. if it's a hooded faran robe), and therefore you can sell, without limit, countless items you haul off monsters. Combine this with an inequitable pricing system from town to town, and your income is limitless. Upkeep costs are negligible. Destroying the items themselves is the only way to start to control this.

On taxation, the main argument against it is that players will resent being taxed. No kidding... they also resent being at anything less than godlike status, having to actually go through a quest to get a reward, etc. etc. They also resent dying, for any reason. All of these systems are necessary to the game, though. Taxation is now necessary to a decent game economy because of the effects of rampant hoarding. If you buy a house in UO and fill it with crap, the only requirement to maintain it is to open/close your door occasionally so your house doesn't fall down, and if your house does collapse, the items are still in the system, as there are a bunch of guys in bone armor and jester suits standing around waiting for it to fall. (The same goes for being looted by another player.) The resentment factor that goes with any necessary control system has more to do with its novelty, not actuality. If UO had a working tax system from day 1, nobody would think twice about it.

The presence of even one superweapon in a game cannot be discounted because of rarity. Two very damaging things happen when this is implemented. One, the character(s) who are fortunate enough to own these things, if they don't go away through decay or some other system, can now camp your supercontent and get the superloot, over and over. This then makes its way into the hands of other players either through gifts or eBay. Item and power inflation ensue. The other problem is that if someone gets a superweapon which throws off the scale of zero sum balancing (a +200 sword that is no drop, no decay, cannot be stolen, and has no drawbacks), eventually it will cause a lot of complaints in your community, as everyone will know about it sooner rather than later. When this happens, you can either take the item away (a sloppy way of saying "we screwed up"), give everyone the super item (inflating player power), or just leave it there (and deal with all the previous problems + antagonizing most of the playerbase).

Selling the superweapons may take money out of the game in the short term, but the use of superweapons leads to inflated XP and, more critically, inflated wealth for the owning character(s). You have therefore only taken a little nip out of the economy in the short-term.

Item rareness in the examples given isn't a factor. Pre patch GSA was just ridiculously good, and getting prepatch GSA in AC allows a player to further enrich himself, with the added benefit of never risking armor loss, compounding inflation. Black dye tubs, as mentioned before, only commanded high prices because the economy was already hideously broken. If the UO economy had been more controlled through taxation (and therefore mitigation of gold duping), the ridiculous price for a black dye tub might have contributed to economic power, IF the tubs were sold by NPC's. They were not, and no money actually left the economy.

Some of these concepts do in fact work in text MUDs and small server situations, but the focus of the treatise was on the design of a larger scale system. Many nice ideas that are valid in a community of 200 or less (a good cutoff for small server populations) are completely useless in a 20,000+ subscriber system. In the small server/MUD model, the administrators have more direct interaction and control over what is happening, and can move more quickly and decisively to correct mistakes. This is not possible in a commercial MMORPG because of the low admin to player ratio, and the fact that it requires a subscription, whereas most MUDs do not. It is to the benefit of the MMORPG administrator to err on the side of caution in all aspects of the game before final, as fixing broken systems post-

release is (a) harder, and (b) the inevitable resentment from players after any fix in the system can result in lost revenue.

I remember when I got a black dye tub in UO for something like 15k, which seemed like a steal. The item was rare, it was, as Mr. Renner put it, a "never-to-be-seen-again" item. After a while, the developers figured out that players liked these things and made them available as Christmas gifts. "Very rare limited items" generally in time translates into either "Very rare but we'll put them back in because players want them" items or "mad phat eBay" items.