

A "Shadow Economy?"

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The acronym MMORPG (Massively Multiplayer Online Role Playing Game) may be as unfamiliar to you as it is hard to pronounce (you can't). And you'd be in good company if you think that this isn't important to you -- after all, the name contains the word "game."

Yet MMORPGs (described below) are already birthing a very significant set of changes that extend far beyond "gaming" into the real worlds of business and social interaction. And as today's "gaming" use of MMORPG and related technologies move forward, their successors will be anything but just 'fun and games.'

Bear with me as we explore some background. MMORPGs (we'll call them "Online Worlds" for this discussion) require the user to purchase appropriate software (game-dependent), to have an Internet connection, and a paid account to enter that particular online world. Each online world has its own distinctive theme, such as the fantasy world of the granddaddy of contemporary online worlds "EverQuest," and the similarly themed new offering "World of Warcraft." Other online worlds also offer their distinct environments, such as those created in Anarchy Online, Dark Age Of Camelot, City of Heroes, Asheron's Call II, PlanetSide, and Lineage (the world's largest online world which dominates Asia, especially South Korea), among a [growing list](#) of others.

What's It All About?

Once set up, the player (we'll call her Talia here) creates an "avatar" which is a 3D representation of herself (actually of the character she wishes to play) in this online virtual world. As she moves around the virtual world (which can be vast, composed of all manner of terrain, cities, villages, caves, and more depending on the genre), Talia sees through her avatar's eyes, interacts with other characters in the game, and uses her avatar to accomplish the relevant tasks of the world (fighting monsters, building crafting skills, developing trade businesses, and more).

So far, this sounds little different from more traditional computer games, but there are some huge differences.

For one thing, many of the characters that Talia interacts with in this online world are *not* computer-generated characters, but are the avatars of *real live people* who might reside anywhere in the real world; they also are playing their own characters within the game at the same moment.

You Can't Just Hit The 'Pause' Button!

Another very significant element of these online worlds is that they are "persistent." This means that when Talia "logs out" of the game for a bit of real sleep, food, school, or work, the online world continues right along; time passes, things happen, and her online adventuring friends who eschew these human needs will continue to explore, to make virtual money, and perhaps to leave Talia far behind in the goals of the game. When she returns to the online world sometime later, she may find

that her friends have far improved their abilities to the point that she can no longer adventure with them.

Unlike most computer games, in an MMORPG's persistent world Talia can't just "pause" the game at her convenience without suffering social consequences. And that leads to very real issues when it comes time to join the family for dinner, go to work, etc.

"Social" Is King.

It's this new element of these games, the social interactions, that cause these real world problems by "hooking" many players through "online compatriots" and adventuring friends (there are many tasks in these online worlds that can not be accomplished alone but require the combined resources of a group). And that social interaction can exert a mighty pull. Many (most) of these players have met only online within the context of their online world, yet they develop very real friendships. And this is perhaps the most interesting element of these "games." The friendships that spring up, and the resultant demands on the players' time have so-captivated some that many psychology professionals now recognize online gaming as a formal addiction!

Indeed, players (and not just a few of the hundreds of thousands of online world participants) have been known to spend 40+ hours per week immersed in their favorite universe, fighting the enemies of that particular world, amassing wealth and status, and making friends with other players around the physical globe. And as with any addiction, this can have a significant negative impact on real world studies, jobs, relationships, and life in general.

Which is why it's so interesting that now, these virtual worlds and the "real world" are beginning to merge! Some "addicts" are now demonstrating that playing these games can also bring them real financial success!

Very Real Virtual Money - A 'Shadow Economy'?

The idea of making money from these online worlds is not new. Although proscribed by many of the environments' Terms and Conditions, high level players have been known to use Ebay and other services to auction off prime in-game items or virtual in-game cash, for very real dollars. In general, the trade is agreed upon in these out-of-game services, the buyer sends the cash (sometimes through an escrow service), and the items are then traded between the two online characters within the game. According to the Dec. 15, 2004 [New Scientist](#), the largest known real world windfall to date has recently occurred.

The online world "[Project Entropia](#)" explicitly DOES allow making real money from in-game activities - in fact that's a premise of MindArk's online world where they even tax real-dollar transactions to help finance the virtual world's operations. They also charge real dollars for in-game equipment repairs which players require to continually maintain their in-game equipment -- after all, bent and broken armor, dulled swords, and aging homes do require upkeep...

From Project Entropia's home page:

*"Project Entropia is a **massive virtual universe with a real cash economy.***

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*Together with **people from all over the globe** you experience adventure, you form societies, and you are a part in the creation of a brand new world.*

*While on the planet Calypso you use the **PED currency** to **invest** in your personal development. The assets you acquire can be exchanged back into real world funds."*

That policy has led 22 year old Project Entropia player David Storey to purchase the in-game real estate of Treasure Island for 265,000 Entropia Dollars. Since ten PEDs (Project Entropia Dollars) are worth, and can be exchanged for one real-world dollar, David's virtual island is worth \$26,500! Again from the [Project Entropia Web site](#):

Withdrawals

"You can convert the PEDs back into real world cash by initiating a withdrawal from within Project Entropia by clicking the Bank button. You may then enter your bank information, and if your Project Entropia account information matches the holder of the bank account the withdrawal will be approved by MindArk. The fees and time for your withdrawal is presented when you initiate the withdrawal from within Project Entropia."

Having plunked-down his money, David is lord and master of this 6,000 virtual acre island complete with castle, mines, beasts, and more. Non-altruistically, Lord David expects a very real payback from his virtual kingdom. He plans to sell mining rights, land lots, and other services to players who wish to pursue their virtual lives on his island -- and it will cost those players very real dollars that will find their way into David's real world bank account. Not only will David charge purchase and rental fees for parcels of real estate, but he will also tax the resources that players mine, skin, and otherwise take from the island!

Looking at a different economic perspective, it's fascinating and notable that according to a paper written by California State University associate professor of economics Edward Sastronova, as described in the Nov. 6, 2002 [Wired](#),

"From an economist's standpoint what's happening in these games is real. You've got a distinct territory with specialization of labor, gains from trade, a floating exchange rate -- real economies are happening."

"...the exchange rate between [the EverQuest world of] Norrath's currency and the U.S. dollar is determined in a highly liquid (if illegal) currency market, and its value exceeds that of the Japanese yen and the Italian lira.... Norrath's GNP per capita easily exceeds that of dozens of countries, including India and China!"

A Real Virtual Future?

I haven't seen any reliable figures that document how much real money MMORPG players have amassed so far, but I do expect that as the driving technologies continue to rapidly move forward to improve military, medical, and other "legitimate" pursuits of virtual online worlds, they will also significantly increase the immersiveness of such games (think 3D head-mounted displays, more intuitive controllers, and eventually neural control of game actions such as is already, rudimentarily, being used for communication by seriously handicapped individuals.) With these improvements, I

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can see more people choosing to spend even more of their time within virtual worlds, especially if they can earn a real living there.

I'm certainly not suggesting that this is "good" -- science fiction writers such as Larry Niven and movies such as the Matrix have already explored some of the potential significant downsides of such addictions. Extrapolating even further, if this were to become a significant phenomenon it could conceivably affect a country's GDP since people living and working in virtual worlds may not be helping the real world's economy!

Doing The Business Of Business - Virtually?

Yet I can also envision highly-immersive non-game virtual worlds that have very real, positive impacts on the physical world and economy around us:

- Imagine an online world dedicated to programmers who write real world programs while within an online environment that is tailored to foster real time collaboration with other developers around the world while providing advanced programming tools.
- How about business meetings held in virtual conference rooms or on construction sites anywhere on the globe (in real-time 3D environments established for this purpose.)
- There could be (and already are preliminary examples of) virtual trade shows where vendors directly interact with the salespeople, engineers, and products that are for sale, but without the need for travel (or for the commerce of airline tickets, hotels, restaurants, car rentals, etc).
- There are tremendous opportunities for improving and extending the military's current uses of video games (such as "[America's Army](#)") for training; they're already used to give soldiers preliminary experience in urban warfare and other areas so that they're not surprised when they march into the real thing.
- The use of virtual worlds, directly tied to the real world, already exist and will continue to improve. Surgeons, for example, already perform certain operations at a console across the room from their patient.

They view the operating field within the patient by using 3D head mounted displays that are fed from tiny cameras on robotic arms inserted within small incisions. Using this interior viewpoint, they then guide similar tiny robotic tools to probe and cut and sew things far smaller than they could do with their (relatively) clumsy huge human hands. They can even do things *better* than the "old" way, in some cases, since normal hand tremors are filtered out to improve accuracy. This technology may also help to extend the working life of gifted surgeons when normal aging might preclude the manual precision that surgery requires!

Virtuality Won't Take Over, But...

Living and working in virtual worlds certainly won't become the norm (short of a Matrix-like takeover of the human race) since unsurprisingly, a vast majority of people prefer to personally experience things rather than to do so through a virtual avatar. On the other hand, consider how many people do most of their "traveling" by sitting in front of the TV...

You may think "game" when your son or daughter becomes an elf, troll, or other character where they fight monsters, learn to cooperate towards shared goals, and - just perhaps - supplement their allowance. Yet the technologies that these "games" have fostered are already beginning to show their effects in the real light of day.



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This is a growing synergism between the convergence of human nature and economics and technology that we can't ignore for too long, because over time the sociological and economic impacts will grow. I can just imagine when Congress passes the first laws that govern virtual societies...

Whatever you do, when it comes to these early signs of change, Don't Blink -- either virtually or not!

This essay is original and was specifically prepared for publication at Future Brief. A brief biography of Jeff Harrow can be found at our main [Commentary](#) page. Other essays written by Jeff Harrow can be found at his [web site](#). Jeff receives e-mail at jeff@theharrowgroup.com. Other websites are welcome to link to this essay, with proper credit given to Future Brief and Mr. Harrow. This page will remain posted on the Internet indefinitely at this web address to provide a stable page for those linking to it.

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