



Reality of virtual life– The first generation

Eudoxa Policy Study #7

Eudoxa Report series number 7: Reality of virtual life- the first generation

Written by Alexander N. Kanaev

The Eudoxa Think Tank publishes this series of policy studies. They address issues that are current or will be in the near future. Eudoxa studies are in depth studies on how emerging technologies will impact our culture and our society

Eudoxa AB

Sveavägen 133

113 46 Stockholm

Sweden

Telephone +46 8 83 87 73

www.eudoxa.se

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About Eudoxa

The Eudoxa think tank is a think tank based in Stockholm, Sweden. The main focus of the group is explaining the cultural impact of emerging technologies integrating the analysis with classical free-market ideas and dynamist thoughts of experimentation, innovation and decentralization.

We work for a diverse society based on a strong moral foundation of individual rights, where individuals have the right to utilize modern technology and medicine according to their own moral judgement. We believe this foundation promotes tolerance and acceptance that will tie our society together, not break it apart. The inspiration behind our vision is a firm belief in individual liberty, free enterprise, a limited government and that ideas have impact on our society.

Eudoxa currently has staff working out of Stockholm, Sweden and Kansas City, Missouri giving them the advantage of being able to approach both the European and American market with a comprehensive perspective drawn from experiences from both continents.

Preface

Reality of virtual life- the first generation discusses the social implications of massive multi-player online games (MMOG). The virtual worlds are now entering the public's mind. In this I feel as if traveling back in time to 1984. That year the author William Gibson published his ground-breaking novel *Neuromancer*

The matrix has its roots in primitive arcade games...Cyberspace. A consensual hallucination experienced daily by billions of legitimate operators, in every nation, by children being taught mathematical concepts... A graphic representation of data abstracted from banks of every computer in the human system. Unthinkable complexity. Lines of light ranged in the nonspace of the mind, clusters and constellations of data. Like city lights, receding.

~ William Gibson, **Neuromancer** (1984), page 69

The establishment of this virtual world happened just 20 years after William Gibson proposed the idea. Such a rapid development ought to be discussed more in order to understand the direction society, business and politics is heading in.

Dr. Kanaev argues that the opportunities offered by MMOGs are switching the concept of gaming towards an environment with deeper implications than just entertainment. Modern society is ready to extend the concept of virtuality, already

commonplace, to whole virtual worlds. MMOGs offer a model for a new society, a virtual environment attractive enough to become the testbed for a new breed of online communities. He uses examples from massive multi-player online role-playing games such as World Of Warcraft (Blizzard Inc.), Anarchy Online (FunCom) and Second Life (Linden Lab Inc.) to demonstrate that, under the word "online gaming" lies a far more serious development trend with deep social implications.

Waldemar Ingdahl. Stockholm February 1, 2007

Alexander N. Kanaev has a doctoral degree in comparative and international education at Stockholm University. He has worked for numerous research projects on behalf of SIDA and UNESCO. He has set up a PhD level course of "Educational research with new technologies" at the Institute of International Education of Stockholm University, and is presently working on a course about sociology of virtual constructs for the Institute of TV, Business and Design in St. Petersburg, Russia.

Dreams reloaded

It is in the nature of man to dream. It has always been so, starting from the dawn of times when, sitting together around the fire at nights, fairytale and stories about strange places and incredible deeds were told. The ethos as we know it was born back then, with dreams of unrealized possibilities and the desire to do something defying the reality of everyday hardships. Portraying incredible examples of imagination and dreams of a better world, tales were told and transferred to generations to come, with added details and even more extraordinary adventures. Sometimes based on true stories, they expanded to include the supernatural to help men in their quests.

The natural desire to rewrite and embellish the events got combined, as it happens, with changes introduced by the people telling the same tale from one generation to another. And, in the long run, the story finally took place in another land, in another world where the rules of existence are different from where we live, where heroes abound and it is possible to fly, meet dragons and princesses, and where the main character can and will become a king, despite all the difficulties.

The alphabet maybe put a certain end to the mistakes and bonus events introduced deliberately to make the storyline more exciting, but did not really change the trend. Stories and fiction became an important part of national cultures, evolving into

whole imaginary lands where events and main characters became so closely interlinked that almost seemed alive. The Greek ethos represents hundreds of stories, where the main characters not only depend on each other for the clarity of the story, but exist together in a world which is so nicely described that it seems incredibly real and alive, even thousands of years later.

Gutenberg merely added to the process, making it universal and accessible. It took books hundreds of years to become commonplace, but the idea remained the same – fiction and tales pushing imagination forward got a new ground to flourish. It became possible to universally distribute the best of the dreams, making them accessible to the totality of the population worldwide. Now everyone could choose from thousands of stories, and spend the evening traveling to a treasure island, all around the world in eighty days, or participate in hobbit wars. The printing press, instead of canonizing the cultural heritage of the world, unleashed the circulation of an unparalleled flow of ideas, dreams and aspirations, to reach a never-satisfied audience.

No matter what it is exactly that you desire or dream of, there are thousands of stories that will cater to your demands. In return, the price to pay is rather simple – all you have to do is get yourself carried away in a place far-far away where everything is possible, where anyone can become a hero, where truth and justice exist and almost always emerge victorious, and where the end of the book can at all times be complemented by a second volume. In other words, the only thing that books really demand is that you close your eyes and believe in the reality of the story. The artists achieving an incredible degree of mastery in depicting a world so real where one would gladly move to live, gain a fan audience willing to contribute to the understanding of the book by creating their own versions, stories and criticism, making it almost feel real. The power of literature allows people to get a sketch of a reality that they can imagine, dream of and develop even further.

Every single art form has contributed to this trend. Theater was born and still provides an amazingly persuasive energy at bringing its own interpretation of what alternative reality can look like, for the audience to live in this dream, even if it is barely for a couple of hours. Music is an art out of this world at all, with abstract concepts created by the genius of the composer, all starting with simple sounds as building blocks. Paintings offer an interpretation of reality, and of fiction, where simple colors is able to portray things past, yet to come and out of this world at all.

When Louis Lumière invented le Cinématographe, he barely added one more layer – to see and co-participate in the action of the story told. Now it was possible to not simply read the story or see it performed on the scene, but to “standardize” it on film, with effects, cuts and editing not possible in the theater. And although everyone is aware that special effects and camera work is what makes the trick, the resulting impact was ground-breaking, for the reality created on the screen, and the credibility of the story being told. The movie industry is not called “dream industry” for nothing. It creates incredibly complex, but believable and high-impact

impressions, using the best of imagination and technology. With the romance between Hollywood and the computer industry being in its infancy, the full potential of this art form yet to be experienced.

Hollywood has only one enemy, which is passiveness. Yes, you can associate yourself with the main hero, occasionally you can almost feel what the main character goes through, but in the long run you are just what you are – a merely passive watcher, unable to change anything or even voice your opinion during the course of the action. Movies cater to the demands of millions of people, giving them exactly what they want -comedies, action, drama, love and hate, suspense and erotica, but there is no way to get actively involved in the story, sitting comfortably on the couch.

Waiting for more effects and interactive endings, humankind has solved the problem by transforming stories into interactive endeavors where the end depends only on your abilities and skills -games. "Spacewars", written by Steve Russell in 1962, gave us the missing link – the possibility to participate in the story, while going through it at our own pace. From now on, you could still see the action on the screen, there was a goal to achieve or a world to save, but the main character has changed from a multi-million dollars actor to the man on the couch - you.

Video games, or computer games, have taken the best of both worlds. They rely on a story, just like books and fairytales. They have an on-screen, visible and highly dynamic world with the best of the special effects and details, only limited to technology at hand. And yet, they have exactly the same aim as the stories told thousands of years ago around the fireplace – to create a world far away where the good guys become victorious, and where every princess will be rescued by a charming prince.

Tool for the brain

On a separate note, human development as we know it has always been oriented towards maximum efficiency with minimal effort. That is why the first tools were invented, to make life easier and make work more efficient. From that moment, the technological advance of humankind in general is nothing else but the attempt to harness even more forces of nature in order to make work more productive, and life -more enjoyable. Everything, from tools and robots to spacecrafts and even weapons of mass destruction, serves this purpose. After all, on an abstract level, mass destruction weaponry serves the same goal as the use of tractors for agriculture – the overall aim is to attain the maximum efficiency of the tool to achieve a specific purpose. In the first case, it is destruction of the enemy, in the second – an efficient field work.

There is hardly a single facet of human life which has managed to escape this process, maybe with the exception of national bureaucracies. Tools are a must for almost the totality of the things we ever do in real life. Transport, work, manual

labor, food processing – millions of cars, robotic factories, mobile phones and microwave ovens – every facet of human activity has its own unknown “heroes”. Whatever we create always aims at helping us to overcome our natural limitations.

If cars compensate for our feet, and mobile phones for our hearing capacity, then what compensates the brain? The story so far has been less than satisfactory – writing in order to help store the information otherwise easily forgotten, mathematics and its derivatives for logical extrapolations, philosophy to explain simple things in a difficult ways.

The brain has also been to a certain degree easily excluded from the search of better tools because of its unique nature. All other organs have a visible evolutionary development pattern, such as the adaptation of the teeth to a meat diet replacing the vegetarian one. Such an evolution is not so obviously noticeable when we talk about the brain structure, still a rather uncharted territory despite the numerous studies.

Those points do not, of course, exclude the brain from being a serious target of research, and the numerous attempts to use more of its capacity. But the computer age we are just starting is indeed the first major breakthrough in this area since writing and the abacus. For the first time logical operations could be mimicked and automated, in order to allow the person using the machine to concentrate on the formulation of the problem, rather than the algorithm of its solution.

Entrusting the machine with logic is, as a concept, truly revolutionary. Although probably at the rudimentary stage yet, judging by the number of times my computer crashes, it nevertheless is a sign of a new world. Only time will tell which of the numerous scenarios so beloved by SF will come true, but we have already done the first steps. A genuine tool for the brain, the impact of computers on our society is still yet to be experienced.

Modelling a new world

From the moment of their creation, computers have always been viewed as a wonderful tool to calculate outcomes of events based on the interaction of numerous factors. Among the different possible applications, a notable one is the possibility to re-create processes, that would be either extremely costly or impossible to carry out in the real world. Since they appeared, simulations have gone a long way, from the first calculations for military use to models able to re-create situations where the final outcome is dependent on the simultaneous interaction of millions of factors.

In other words, modeling and simulations have always been a strong point in practical computer application. The development of graphic cards has contributed to that by allowing large amounts of data displayed in a graphic form easily understood by the brain. Thus, instead of displaying large amounts of data relating to altitude, speed, outside temperature and the many other factors which affect

flying, flight simulators just portray a dashboard and the airplane in 3D, giving the pilot the as-close-as-possible experience of real flight. The goal of computer-based simulators hence is to translate changes in virtual reality based on the actions of the person acting within it.

Using the newest technologies of emulating complex processes is widely used for education, from car driving to pilot training. In addition to the possibility to simulate events too difficult to recreate in real life, simulators are also far more affordable than “the real thing” as they can be restarted if appropriate, and then flexible in their usage, upgradeable and dispensable at the end of the day. As technology develops, accurate representation of reality recreated on the screen is getting better and “more real” every day. It also gets more affordable, to find a new place in our homes.

Leaving along industrial applications, no one gets impressed any longer by flight simulators available in any software store and your local Wal-Mart for a price of a cheap radio. For the everyday customer, simulators rely on the existing computing power of generic home PCs, which grows almost exponentially. There is nothing that would prevent anyone to experience, while sitting at home, what it is to be a fighter pilot or a GrandPrix racer. But the trend does not stop here. Actually, this is where it all started, powered up by the popularity of computers for home use, and the expectations to be able to purchase an artificial, but synthetically real environment.

Computer games are the logical, although unexpected, result of all of these factors. The desire to dream, added to a new tool to boost the possibilities of the brain by removing the repetitive tasks, and the technology to provide interactive, easy-to-understand feedback on the screen. There is enough computing power to go beyond calculating probabilities of our real world. Instead, we possess everything that is needed to start experimenting with creating our private realities, a multitude of worlds that we create ourselves. Worlds that have everything that is needed to make them as close as possible to autonomous organisms: a set of rules, freedom to exploit their possibilities, and the willingness to play God in the safe surroundings of our homes. Don't like everyday reality? Just buy yourself another world!

A brand new world of gaming

Computer games were never really taken seriously. They still are not now, because of the simple logic that computer games are just what they are ... well, games. Monopoly® has demonstrated that a game can be a symbol for a whole generation, chess - that a set of rules can have a history comparable to the oldest civilizations. Still, games are to a big extent viewed as a domain reserved to kids and adolescents, a way to make them have an alternative to television and a fun past-time. Much has been discussed about attempts to use them for educational purposes, as a new learning tool with incredible possibilities. But while theoretical discussions are

going on, the gaming industry has grown in less than fifty years¹ from small companies into multinational corporations. If some twenty years ago it was possible to write a game as a hobby after work, and become famous, nowadays it is an incredible work of hundreds of people. Not just programmers, but also graphic artists, modeling, sound engineers and story writers.

Whether we like it or not, games have become an unalienable part of our culture, reaching to millions of people. The launch of a new PlayStation® or HalfLife2 is becoming almost a national event. Games reach into and exploit existing mass media, giving it a new expressive layer. Most of the movies, especially aimed at the adolescent audience, are “continued” through games with the same title (Lord of the Ring, Star Wars, just to name a few). On the opposite, we are gradually seeing the appearance of movies based on computer games, such as Doom, or books following the game². With incredibly elaborated storylines, clearly distinguishable characters and their unique worlds, games are becoming the new multimedia element, and an everyday part of our lives.

It has become practically impossible to avoid games, no matter what you do. Games await us in mobile phones, portable devices such as PSP or iPod, car entertainment systems, standalone arcades, consoles etc -the list is huge and grows every day. As a new thing, we experience some strange mutations, such as in-game gaming systems³ and ad-hoc gaming networks. With so many options available, the share of gaming time is bound to grow steadily, replacing conventional recreation activities. Figures from the Consumer Electronic Association demonstrate that despite the common misconception that it is an area traditionally reserved to adolescents, games have now become a rather popular past-time for the grown-up generation. The development of gaming, its easy accessibility, multitude of choices, from strategy to fast-paced first-person shooters, is driving this trend, already quite noticeable. In a way, the situation is paradoxical as games are being created by adults for adults, instead of staying within the traditional niche of teenager entertainment.

Connecting people

Alongside with the invasion of games, computers have brought the world in our homes, called the Internet. Billions of pages, linked together in meaningful and meaningless ways, on a global scale. Ease of use, combined with the possibility to

1 Spacewar! was conceived in 1961 by Martin Graetz, Steve Russell, and Wayne Wiitanen. It was first realized on the PDP-1 in 1962 by Steve Russell, Peter Samson, Dan Edwards and Martin Graetz, together with Alan Kotok, Steve Piner and Robert A. Saunders.
<http://inventors.about.com/library/weekly/aa090198.htm>

2 “Prophet Without Honour” by Ragnar Tørnquist – the story behind the world of Anarchy Online

3 Slingo game available within Second Life, arcade stands within Grand Theft Auto San Andreas

get any information, regardless of its physical location, is the major breakthrough in information accessibility and storage ever experienced by humankind so far.

But the information component of the net has been quickly complemented by attempts to use the possibilities of the new medium for communication purposes. It might have all started with simple email, but since then quickly grew to now challenge conventional means such as phones. Affordable, instant and using any available technology, from video to interactive expressions, computer-based communication is steadily growing both in size and quality, to the point to confront anything we had before in terms of reaching anyone anytime and pretty much everywhere.

From the notion of a place where one would go to get knowledge, we have somewhat drifted in the direction of dynamic exchange of information, 24/7, immediate, worldwide and easy to use. Some of these developments just extend the services we are familiar with to the next digital environment. Email has gradually replaced snail-mail (when was the last time you wrote a letter on paper?), a whole swarm of instant messengers, voice-over IP as a new alternative to the long-overdue monopoly of telephone companies are just some of the examples.

But the net has also given birth to communication opportunities which were just not possible using the technology we had before. Some directly refer to long-lasting science fiction novels, such as video calls, that everyone has been dreaming since the invention of the telephone. Some are amazing in their creativity, such as the rebirth of the private diaries, but with an openly voyeur twist of blogs.

The Internet has created an amazing sense of duality in the way we communicate. What we have created gives us an amazing power of anonymity and voyeurism, privacy and exhibitionism on the global scale. As it is way too easy to be anyone, anything or even several persons at the same time, "split personality" is no longer a disease, but a way of life. You can be a fighter pilot, then switch to a private email account with a provocative name, and then post in forums under a third mask. Add to this blogs, personal webpages, and diverse system logins – who could tell that they all belong to the same person?

The internet age has taught us that not only we can do what we want, but that we can also be who we want. As easily as opening a new anonymous email account, we can download a game where we can be whoever we desire. With only a couple of mouse clicks, anyone can become a publisher, and your real name is not required. Nicknames are becoming a new appearance, the only way to keep track of all the freedom of expression within thousands of different digital settings. The explosion of Internet use has given us an unexpected bonus – the idea that we can be anyone we wish to be.

The information overdose

By providing hundreds of technologies combined together into one immense information hub, the Internet has contributed as nothing before to allow people to find each other. No matter what your hobby, no matter what your interests and how specialized, narrow or unusual they are, it is possible to find people who will share your passion. Even if you fancy collecting plastic spoons from fast food restaurants, or fixated on dismantling MP3 players, you are guaranteed to find friends who will share the same interests. And of course you can start a website and have endless heated discussions online.

Are blogs, discussion forums, web-based newspapers, etc the ultimate triumph of self-expression? Or are they the sign of a new drug, the perfect illusion of a world where anyone can say anything, but no one listens as everyone is too busy talking? The ultimate goal of your web page is that it can be read by billions of people. But how many visitors do you actually get?

In these conditions, freedom and the apparent affordability (hey, you can easily read thousands of newspapers online for free every day!) is utterly deceiving. Yes, we pay for it, and we pay dearly, struggling to separate the good informative content from the billions of websites existing for an unknown purpose, and of course with our time. Over and above that, the quality of the content, or, in other words, credibility of online information is one more drop in the ocean of doubts on whether we really have a worldwide repository of knowledge, or a worldwide trashcan of self-expression.

Defining “virtual”

Are telephone conversations real or virtual? A question that popped up in a discussion in a forum online, it seems that the answer is less than obvious. On one hand, we talk to real people, so how can that be virtual? On the other hand, when using MSN chat, we talk to real people as well, so is the difference as deep as the technology used? Does a person that we talk to exist because we can actually meet them “offline”, and then use the phone because of a specific purpose or task to do? Hardly an argument as well, as talking to your team members inside a game happens for exactly the same reason. Finally, does it really matter that much as long as we are talking?

The truth is, we are already used to virtuality. No matter what we think about virtual worlds and communities, they do already exist just like telephone conversations. Moreover, not only are we used to this abstraction level of technology mediating our actions, we get used to way stranger things. Like, using the same telephone example, not only we daily converse with humans, but somehow no one thinks it a wicked idea to talk to computers. All those answering machines, intelligent switchboards or just plain automated responders guiding you

through your ticket reservation without any human intervention – is not that a sign that it really does not matter who do you chat with providing that at the end of the day you get what you desire?

And it actually gets stranger than that. No matter where you look, there are more question marks about our sanity. The whole mass media industry has totally succeeded to blur the borders between what we interpret as authentic, and its non-existing, but nice looking substitutes. As a result, no one minds an increasing amount of digital effects in movies, or animated toons instead of actors. It is becoming increasingly difficult to treat what we see on the blue screen as anything that has to do with reality whatsoever. Cities in space, armies of undead storming goblin castles, dinosaurs and charming aliens dreaming to go home – as the amount of simulation proficiency goes higher every day, one is left to wonder whether we are going to see anything “real” coming from Hollywood any time soon at all. To extrapolate this line of thoughts, one might start wondering whether some of the figures we get all excited about do actually exist. Britney Spears, Sylvester Stallone or Osama bin Laden – is there anyone who has seen them in real life or talked to them at all?

The reality as we know it becomes gradually infiltrated, dissolved by the everyday injections of information distorting reality. If we possess the technology to modify in real time the billboards during a football match so that every national audience can get their own advertising, am I supposed to believe the results of the game? With all the software available to manipulate pictures, can I trust the photo someone sends me? In the 70's, Stanislaw Lem⁴ brilliantly described the future of society dominated by drug ingestion in order to simulate any event. Some thirty years later, we have come to the exact same point, but using digital simulations to persuade us that we really watch an empire collapse filmed in outer space. The credibility level is therefore only constrained by our ability to believe what we see.

Our inner beliefs that things have to be material, touchable and real are getting eroded day after day. Mikhail Bulgakov, who proclaimed that “writings do not burn” or Ray Bradbury would be most shocked to learn that you can write, publish and read books without them ever being printed on paper. E-books, as they gradually get to be known, can be bought, downloaded and read from the screen, getting them as close as possible to a digitized representation of thoughts, all without the tedious process Gutenberg has given to the world.

Coming back to the idea that virtualization of our society continues, embracing new domains every day, the above-mentioned example of a phone conversation comes to mind again. Thanks to IP telephony and companies like Skype, even the physical phone is disappearing, to be replaced by a picture on the screen.

4 Stanislaw Lem The Futurological Congress: From the Memoirs of Ijon Tichy

Virtuality of split identities

The best examples of virtuality are to be found in the computer world. It emerges basically from the scheme designed to deal with information created in the purest of digital forms. What is a computer file? Technically, just a string of data that stores all those letters you have typed. But does it exist while you work on your document? Somewhat, as it is just electric signals in memory and will be gone should you fail to save it. So you do, giving it a name. Do you name every piece of paper where you happen to write something, because otherwise they will disappear? We are gradually getting used to the fact that every file requires its own pen (program) to work with, and can be easily duplicated to infinity. Actually, the “pens” can be copied as easily.

In a similar easy way your identity can also be created, deleted and tampered with. It is not illegal to have a hundred different email addresses, being registered in discussion groups under different names, or to quickly create a new dummy self to troll in the forums. An anecdotic situation, where a person posts his/her work online and then creates hundreds of dummy characters only to write superb reviews of their own work are becoming an increasing concern. Nicknames, once a part of the cultural folklore, are now a new form of self-expression, but also a new form of anonymity in a world where stories about “identity theft” are symptoms of an alarming trend – as we rely on it more and more, dependency on virtual identities is growing faster than anyone thought possible.

Lenin has demonstrated that it is possible to make history with a nickname. Nowadays nicknames are routinely used as a way to create additional faces of one's personality, and to deal with virtuality under the assumption of a new start, a blank page of a new life. Every software giant that has so far tried to introduce an online version of an identification service (MSN passport®, Yahoo!ID, Google account), has failed to succeed as it works only within the realm of the market space they cover. Along with office accounts, logins at home, private emails, characters created for online games and identities used for blogs, forums and IRC, virtuality looks more like an incredible mix of characters that will never meet.

Introducing MMORPGs– the unpronounceable abbreviation

The history of massive multiplayer online role-playing games (MMORPG) is usually traced back to the first experiments with interactive gameplay space. These attempts, text-based and run by enthusiasts, were referred to as MUDs, or multi-user dungeons, with the first created in 1987. The system provided text describing the room, place and world where the user was, and it was possible to accomplish a series of actions by typing commands. Twenty years later, the term “dungeon”, still

widely in use, usually denotes a location with unique enemies to be defeated for items.

Running on proprietary networks, such as AmericaOnline or CompuServe etc., well before the time when the Internet became everyone's favorite buzzword, this type of games has quickly evolved. From text to graphics, first of all, with the first graphical virtual world of Habitat in 1988 (later known as Club Caribe). Habitat was also the first game to introduce the concept of an avatar, combining it with the possibility to more closely interact with other players through a chat system. In 1991, Neverwinter Nights was introduced by AOL and successfully run for six years. Both games also pioneered a new way to make them profitable, charging customers per hour. The first Internet-based MMORPG, legends Of the Future Past, although text-based, was launched in 1992.

Since then, the MMORPG world has been a constant steady development and mutations, where the role-playing element is not central any longer, that they are better referred to as MMOGs, massive multiplayer online games. For March 2006, there have been 97 released and working MMOGs registered at the www.mmorpg.com, with some 88 more in development or testing stages. According to their registry, the division by type is as follows:

<i>Status</i>	<i>F</i> <i>anta</i> <i>sy</i>	<i>H</i> <i>istori</i> <i>cal</i>	<i>H</i> <i>orro</i> <i>r</i>	<i>R</i> <i>eal</i> <i>life</i>	<i>S</i> <i>ci-fi</i>	<i>S</i> <i>port</i> <i>s</i>	<i>S</i> <i>uperh</i> <i>ero</i>
Develo pment / testing	6 6	4			1 8		
Release d	6 6	5	2	4	1 7	1	2

Source: www.mmorpg.com analysis

The different types, although rough, clearly show that the major development efforts are made in an attempt to create virtual worlds based on classic imaginary settings. Fantasy and science MMOGs allow gamers to find themselves in a world which is familiar, even if only from books and movies. The fantasy-based worlds are the richest in terms of content, with literally thousands of books describing every single detail. From Tolkien to the world of Narnia, classic fantasy settings revolve around several races coexisting and fighting, a world where the details abound, and quests are as natural as the existence of monsters. It is therefore very tempting for someone who likes Lord of the Rings books, or, for what matters, the movies, to get engaged in an online continuation of the story. The popularity of World of Warcraft is easy to understand as where the game recreates most of the

characteristics, including weapons, surroundings of the medieval atmosphere, with strong fantasy elements.

The vast majority of MMOGs are built on a standard game logic. You start with a basic character, and advance through levels by fighting monsters (NPCs, or non-player characters). In return, you get experience and sometimes loot, or in-game items, ranging from weapons to parts used to build things. Level advance allows to build up the character, who usually possesses a wide range of skills (from fighting to medical, magic, nanotechnologies, martial arts etc.) to be “developed” by adding points gained with every experience level. In this way, it is possible to “train” a totally unique character, In Anarchy Online, for instance, a character possesses 80 character skills, allowing an incredible amount of customization, which in the long run turns it into a unique, tailored-to-purpose creation.

Adding to that, every game comprises thousands of items that can be acquired either through quests, or bought for the in-game currency. Apart from weapons, those cover pretty much all the facets of what the character can do, from clothing, but also armor and self-defense artifacts, to magic potions and spells. The ultimate goal to advance to a high level then becomes a complex, rich in adventures and places to explore, story. In return, what is required is quite an amount of knowledge, in-world research and cooperation, and of course time. Months and months, easily translated in years, several hours every day. A never-ending adventure, occurring in real time in an artificial world, replacing anything that could have been done in real life.

MMOGs– not your conventional game

Although online game worlds seem, at first glance, to be just a new variation of the same games that we are already used to, their similarity is purely cosmetic. MMOGs are to “conventional” games such like Tetris what mobile phones are to Bell brothers’ invention. The computer games industry, although rather young, is developing at an incredible speed, fueled by the increasing appetites of customers, but also using to the maximum the fast pace of technology development.

Several factors, outlined below, make online games a genuinely new stage of game development. Every one of them is a powerful force in itself. Taken together, they allow to suppose that what we see right now is not just an evolution, but rather a break-through to a different quality level, a point where it is about time to start treating games as a new force that radically changes the way we live.

Scale, details and upgradeable worlds

The creation of online worlds has resulted in a very perspective-rich possibility for the companies running them to create endless, ever-evolving dynamic environments. That is a qualitative shift from the static game worlds one could buy

on a CD, install and finish in a couple of weeks. Conventional games were built to be finished, modern games are endless and proud of it.

Despite the fact that most “offline” games can be upgraded or patched after they have been installed, a serious expansion, additional levels or a continuation of the story is usually provided in the form of sequels, expansion packs etc., assuming that the customer would like to invest in them. MMOGs offer a totally different perspective to the problem. By definition, the information about the gaming space is either stored on the company servers, that the players just access when they log in, or are downloaded periodically to the players’ machines. In addition to that, the companies work hard to balance the game play, polish its rules and fix unexpected problems. Anyone familiar with MMOGs is used to the fact that from time to time they have to download a new client, therefore updating their game at regular intervals.

Therefore, it is possible to expand the virtual universes almost indefinitely, and all within the game itself, without requiring players to reconsider whether they'd like to invest into an expansion pack or maybe switch to a different game. Some companies also offer extended episodes adding to the main story (Anarchy Online offers now two expansion packs, “Shadowlands” and “Alien Invasion”, with a third one expected soon), while some worlds, such as the Second Life gamespace, the world itself grows in scale without any user involvement. In the long run, the companies’ possibility to expand the synthetic reality is only limited by the processing power and software used.

The outcome of this possibility is, quite simply, a potentially endless gaming milieu. As long as you like the idea of the game and have a character “high” enough to get involved in advanced exploration, the possibilities are close to be infinite. The age where games used to have a “game over” screen is over. Just like our “real” world itself, the online worlds are becoming endless entities, with an endless time to explore them.

PVP and cooperation

Any game is a challenge, a fight or competition against someone. The popularity of “offline” games has always been to a big extent dependent upon how realistic the enemy is, how well they can think, what they do. The more unexpected and professional the enemy response, the more captivating it is to defeat them. Faced with a similar problem, multiplayer environments deal with it in a drastically new way. It is an alternative solution as compared to the money invested in artificial intelligence of the computer-controlled characters that have to behave as human-like as possible. Although almost every MMOG still contains numerous NPCs necessary for quests, raids and other game-related activities, their role is not any longer comparable to old style games. The accent is no longer about the leveling as such, but the interaction between the payer and the online world. Leveling, the

activity geared towards getting the character more powerful and individualized, becomes a way of expression instead of being the ultimate goal, a process of growing up to find the place within the community of the game. It is a self-esteem booster and an aim that doesn't really get one closer to the end of the game, but to the beginning of fully live it.

The MMOGs have switched the gameplay accent towards the process of recreation, instead of the well-defined goal of seeing the phrase "game over". For the "classical" breed of MMOGs, a high level gives the possibility to act against other players, to make a player-versus-player career, to become known and influential within the groups, parties and coalitions. This aim is de-facto part of the story, as an epic battle without end, or as spontaneous groups growing into organizations. Whatever unites them, a common idea, language or task at hand, they provide unique opportunities for a full-scale online community, together with a hierarchy and goal.

In-game interaction is a truly unique phenomenon, making MMOGs very different from "conventional" games. The idea was simply impossible to realize in an environment where a game was being played on a game console or at the computer. It has always been assumed that the main character, the car or the spaceship operated all alone, with the ultimate goal to destroy/outrun/trick the multiple opponents, in order to win. MMOGs have introduced a new variable which only contributed to their popularity – cooperative gameplay. It can be as simple as a team needed to get past a monster/quest, or as elaborated as special areas where one can engage in fights with other players (PvP), for fun, fame and sometimes profit.

The gamers are no longer just passive recipients of the story designed for them by the company. Instead, they are the ones who actively play a part in creating it. They add, by playing, a whole new dimension, and make the game thousands of times more appealing than it would be with just brainless monsters to exterminate. They add a human touch, a real environment where the competition goes among players. It is like if hundreds of thousands of people were working together with the company to make the game, animate it every day and make it even more interesting and challenging. "Multiplayer" has allowed unleashing the creativity of the participants, giving them a chance to make something new, from a guild to a city, and turn into active content creators. In turn, the feeling they get is of absolute control within the artificial world, a sense of belonging and involvement, very much different from a sense that you get when you play Tetris.

Paper doll heaven, or the art of avatars

According to Encyclopedia Britannica, the word avatar is of a Hindu origin, defining "the incarnation of a deity in human or animal form to counteract an evil in the world", usually referring to the ten incarnations of Vishnu. Krishna, the eighth incarnation, is an example of a personification of a supreme being in a human form.

This form can be animal or human, but the key idea behind it is that of the same being represented by an incarnation to serve a purpose.

If there is one area of humanity where every single unusual idea has been adopted, used and modified to describe a strange operation going inside what is supposed to be a machine without soul that is certainly computers. Looking at the lingo used in the computer world, it seems that wildest imagination has been used to populate it. In UNIX, the grand-father of operating systems, the background processes waking up when necessary are referred to as daemons. Even the most common devices have usually a whole history of adopting a simple thing and making it absolutely novel. Douglas Engelbart, who back in 1963 called a wooden block with wheels a mouse, should have had the biggest laugh in history. Some more examples coming to mind go from ghost processes to firewalls, from shells that have absolutely nothing to do with the sea, to the most useful command in Linux, which is simply "kill". The computer world, although young and in full puberty, is saturated with folklore surviving and developing despite the proliferation of white-collar corporate culture and multinationals.

Strange to the uninitiated, the terminology, or better the descriptions adopted usually fit amazingly well into the purpose. Daemons work without interruptions fulfilling a task, just like the Maxwell daemon. In the same way, avatars are our new representation, our new incarnation in a new world online and inside the computer. They can be as simple as the pictures representing us in Microsoft Messenger, or sophisticated as a character where almost every feature is freely modifiable.

You can have many. Actually, once you start using the Internet, it is almost impossible to live without one. From instant messaging services to on-line forums, the picture representing you as you would like to appear to the outside world. An expression of your identity, a state of your mind, an add-on to the picture of your second identity.

The primary feeling of anyone on-line is the one of anonymity. No one knows who you are; no one can see the person behind the name, nickname or number you use. The overwhelming sense of being able to do whatever you want and the feeling to be hidden behind an email address or a brand new nick you just chose is what has powered computer-assisted communication in the first place. And while the debate about the freedom of expression in an uncontrolled environment, multiplied by the global scale, rages on, millions of people are daily engaged in collaboration, discussions and heated correspondence about virtually every single subject imaginable.

But communication on the web has one huge minus -it is hardly interactive. One can pretend to be anyone they like, but the possibilities to express oneself are severely limited by the medium used. In other words, a webpage, a keyboard and maybe a picture from time to time are hardly enough to build a whole new way to express oneself. That is exactly the major point successfully addressed by MMOGs.

A nickname with a picture is a thing of the past, a tradition of the stone age of the computer world. In almost every MMOG, the selection of the avatar is not a process to be taken lightly. Rather, it is almost an initiation, a rite-de-passage. Gender and height, race or breed, hair style and name – depending on the world you are about to enter, those can be either changed later, or will be you for the years that you play with this character.

The promise to be anyone you want is an understatement. Suddenly, your identity, the person you are or want to be, your gender and eye color, physical strength and knowledge of spells can be changed with a click of a mouse. Ever wanted to be a mage, an elf, necromancer, monk⁵ or a nanotechnician? Get a totally fresh start in a world where no one knows you, be whoever you desire, do what you want.

Character creation is not something new that has not been done before. But there is one difference. The character you create in an MMORPG – it is you as thousands of people will meet you. It is you as you want to appear, it is the way you want to be known, it is the foundation of your brand new identity. After all, a female doctor is supposed to act and behave differently than a troll from Midgard⁶. Some games provide an even easier solution for playing around with your identity. In Second Life, it is possible to change your gender, breed and shape by simply buying a new one. You can be a ginger man if you fancy, or, if you can not find anything to express yourself exactly as you would like, you can always create your own.

Your avatar or the walking, talking and acting alter-ego is somewhat similar to the one from traditional computer games, but is drastically different in its purpose. It is not one of the possibilities of the game, but rather your way to mold the game to make it your own. The combination of breeds, genders, skills and appearances one might take creates a situation where no two characters in the game are the same. Doesn't that sound suspiciously similar to reality?

Social emulation

It might seem that MMOGs are simply a new variety of amusement. And, although fun and highly addictive, they are just a nice way to get an interactive story that unfolds on the screen, a new twist in gaming entertainment. Yet another way for the kids to waste their time, hunting imaginary monsters instead of hanging out in the street and learning real skills.

But recently a new breed of online games has surfaced, to slowly make their way into the yet not so crowded market. Yet few, they build on an existing MMOG environment, while twisting it to the extent of the imaginable. They do not really

5 GuildWars

6 Dark ages of Camelot

focus on the traditional settings, which are either fantasy or science fiction. They do not even contain a story, or monsters to fight. Not really appealing to teenagers because of their rather loosely defined structure, they are for us, adults.

What do you do in an online world where there are no monsters to kill, no leveling⁷ and no predefined story to comply to? The two keywords describing this new mutation positioned as “social games” is to create and socialize. The deceptively simple combination of the two has so far created a stable audience of hundreds of thousands of people, with numbers growing every day. The example of Second Life, probably the most advanced among the competition, wonderfully illustrates the way the combination of socialization and creativity can not only craft a new world, but build an environment so attractive that it starts to seriously compete with the world as we know it.

Second Life is built around the simplest possible of the concepts: do not give the users a predefined, pre-built place where one can go around and marvel at the company attempts to create outstanding artwork. Instead, present the users the possibility to build their own world, with a virtual constructor. Simple to use, but at the same time powerful enough to create pretty much anything, from jewelry to skyscrapers. Physics engines, so that one can easily build a pool table and play pool to one's heart content. Textures to make the illusion perfect. Make a car and drive it around or why not an airplane? Whatever you are dreaming about, whatever your obsession or simple hobby, it can quickly become in a synthetic world where anything is possible, the center of your creative activity, and the major purpose of living there.

Taking design to a new level, every single piece of what comprises an avatar is also built in-world. Clothing and hair, shoes and makeup – anyone with basic knowledge of drawing can create something new and amazing. Your appearance is therefore as flexible as switching from a vampire's costume to a pair of designer's jeans. In the same way, your whole appearance, male, female or anything else, is totally customizable, and dispensable as a pair of gloves. Be a spider when in a bad mood or a virtual copy of Pamela Anderson if you feel playful – your appearance becomes variable as the possibilities for self-expression, no matter what your age, real gender or real world appearance.

There are 2^{128} possible key combinations, yielding 340,282,366,920,938,463,463,374,607,431,768,211,456 possible keys. Abbreviated as $3.40E+38$ would normally be said as "3.4 times 10 to the 38th power". You could also call this 340 undecillion. Because of this, there is little worry over SL running out of keys for objects, scripts, sounds, and textures.

⁷ The process of going up the ladder by advancing from level to level, based on the amount of points collected through gameplay.

As if that was not enough, an in-world programming language allows advanced animation and about any type of manipulation of objects. While the world grows and evolves, all kinds of projects explore the possibilities of the imaginable. From simple objects that perform actions when pressed to amazing experiments, such as an in-world infonet, Second Life is a nice opportunity to learn a new skill, but also a paradise for programmers eager to leave their mark and get known.

Finally, the best glue to hold it all together and have real revenue from your creative work – money. Yes, the in-game currency is freely exchangeable for real dollars. While some game companies have adopted a really negative attitude to any attempts to link the online currency to hard cash, Second Life has breached the gap by allowing the proliferation of a real in-game economy, with results being available in the real world. Although most of the transactions revolve around modest sums of one or two dollars, the totals are amazing. They give people the incentive to create things, and the monetary compensation for the artists, creators and just about anyone who contributes to make Second Life a better place. And if someone still finds it unusual that online, purely digital items, cost real money, they should have a closer look around. After all, a rare spell or a rocket made by a fellow player, there is no difference as to the content as long as it provides users with an experience that they are willing to purchase. In exactly the same way they would purchase the right to see a movie, or download an MP3 file. The digital economy is therefore here to stay, and is bound to grow to provide new items, services and opportunities as long as the players are ready to buy them.

With no monsters waiting to be killed and no quests to accomplish, the only major past-time for those not obsessed with creating things is to socialize. After all, a whole world waits to be visited, and if you bought a house, why not invite people to look at it? Night clubs, casinos and about any type of entertainment where interaction is the focus point is there for those who want to make new friends, dance, talk about almost anything, or participate in activities organized by their fellow players. Friendship counts a lot in Second Life; it is one of the stable currencies making the game interesting, and interaction so fun. Talking to people on IM is a way of the past, going with them to see a theater play inside the world is another. Sending an email does not even come close to the possibility of organizing a birthday or a housewarming party. The gameplay goes as far as allowing virtual partners, so marriages abound and are taken as seriously as ever. And, should you fancy the idea, you can theoretically create another alternative avatar... and marry yourself.

Inventing your own game

In a world where every single house, nightclub or shopping center only makes sense if people use it, competition is high, but so is the revenue. Both moral and monetary, it animates the synthetic environment in a way unmatched by any other type of communication we have experienced so far. It comes as close as possible

with the commonplace technology to recreating human emotions and feelings, further promoted by the accent on human interaction. The most popular expression in Second Life is, by far, “no drama!” Despite this fact, the different in-world stories about people that meet, virtually fall in love, get married, and then split, is abundant. To the point that Second Life has its own privately-run in-world detective agency, but also several newspapers that strive on the details of what is happening to the famous in-world personalities. A paparazzi job can pay quite well in cyberspace, providing that you have what it takes to dig out stories and the desire to take online journalism seriously.

Second Life might be a rather extreme example, at the very edge of what can be achieved by drastically changing the rules of the game. But the complexity of MMOGs is bound to result in situations where what is supposed to be the core of the game gets modified by players to best suit their interests or activities. The rules and situations are so complex that there are numerous innovative ways to use the environment. As an example, there is at least one person who, instead of fighting monsters and working on advancing to higher levels, has set himself the goal to visit every single outstanding place in Anarchy Online, and described it. The website with information about the planet of Rubi-Ka sightseeing, showing the beautiful places one might want to view, scattered all around the synthetic world, is probably the first attempt at virtual tourism.

A typical in-game economy revolves around collecting goods, artifacts and raw materials, and then trading them for in-game money. The accumulated sums are used later in order to buy weapons, armor, nano-formulas and everything else needed for the gameplay. Although most of the companies running the MMOGs are explicitly prohibiting the linkage of the in-world currency to the real money, it is extremely difficult to keep that process under control. As it is the most logical link to the real world, “gold harvesting” and re-selling weapons, armor and almost every single piece of equipment happens both within the game, and through eBay. Blizzard Entertainment usually ends up in the news trying to keep under some type of control the rapidly growing community of World of Warcraft, but the repetitive rumors that quite a number of people make real income from almost professional artifact hunting and reselling are abundant.

Socialization, large amount of people grouped together in a world where cooperation plays a serious role for a successful gameplay, are bound to sooner or later result in the development of human contacts and relations. The rules of the game, where people are supposed to treat cooperation as a way to help them to level up, are getting expanded to create more or less stable social organisms, such as, for instance, organizations/clans in Anarchy Online. Those groups, guilds or organizations can revolve around cultural manifestations, such as uniting players from one country (for example, the Russian Alliance in Anarchy Online, French-Connexion in Second Life), or be focused on special interests, or a group project. Whether it is about building a cathedral together, or teaming in order to complete a

quest, the desire for structures is big, as are the benefits. The biggest groups really evolve into well structured entities, with their own newspapers, websites, executive ladder and reward points.

Implications

Every single invention strives to change the world. The rapid proliferation and evolution of MMOGs is yet another stone in our evolution to a new society, where digital content is an unalienable part of. Whether we like it or not, one day without Internet would probably do more damage to the global economy than a medium-scale war. Our dependency on computers and computer-based communication is rapidly reaching a point to become transparent, while, at the same time, critical for our daily lives.

But as we tweak and boost the information processing possibilities all around us, the interaction goes both ways. Computers transform us in the same way as we develop them. They modify the way we work, interact with each other, and spend our leisure time. But the influence does not stop here, but spreads to the levels to affect our attitude towards the world we live in. Geographic position becomes irrelevant as long as you can find a common language to converse. It is no longer a problem to get two hundreds letters per day, or send twice as much. You can have your own movie studio at home, and everyone is a photographer as mobiles phones without a camera are becoming a relic of the past. We think different, adapting ourselves to a world where information is no longer a scarce product, but rather a massive overdose no matter what you are looking for. And as we are just entering the dawn of the information age, those transformations have just begun.

We have grown to treat virtuality as a natural part of our lives. The ways to get immerse in a different world, a luxury available for centuries only to those who could read, afford books or go to the theater, have exploded to become commonplace. From movies to television, from computer games to online communities, alternative reality is a normalized part of our daily existence. In these conditions, the question of "what is real" becomes more and more a real brainteaser as our ability to fake reality grows. It is no longer a technical question, as, for instance, the world of Second Life can contain a number of objects big enough to match those around us.

We are used to buy purely virtual services, something that you cannot touch, or even sometimes own. Your Windows system does not really belong to you, and if you think it does, read the small print. Intellectual property issues are a wonderful illustration, giving ownership of ideas and concepts that become a marketable product. We purchase information, despite the fact that it is copiable to infinity. Why does the idea to buy existence in another world look so scary?

Theoretically, there is no big difference between playing a computer game, and going to the movies or watching television all evening. The only difference is that in

a computer game, the main character is you, and the future of the events depends on you as the hero. Add to that the possibility to talk to other players, set up your own shop and go to a disco together – and the illusion is almost perfect. The most interesting is the reaction to those that, being immersed in this extra life on a daily basis, treat it as being totally normal. Does it matter where you are, in your real life, or somewhere else, as long as you take pleasure from it? Is there really such a big difference between reading the story and believing in the characters of the Lord of the Rings, or building a team to take over a city in Anarchy Online? In the latter case, you are in control of how the story goes, you make it happen. Freedoms of expression, plus the freedom of actions, together make a combination almost impossible to resist. The feeling of belonging to that new exciting world, as projected through the possibility to modify it, is incredibly strong, compensating for using the keyboard for actions, and the limitations of your monitor and Internet connection.

MMOG addiction

Such powerful incentives as active involvement and the freedom only limited by the creators of the world, and the influence on things happening, results in an incredible addictive power. It never rains online, and if it does, it is just part of the scenery with no consequences. The colors are bright, the avatars always pretty, and the interaction abundant. Quests, parties and friends – all together the combination of these forces explains what we are starting to witness now. The online worlds, the virtual environments we have created respond far better to our wishes and what we expect as dynamic, fun and captivating entertainment, sometimes better than the everyday life. It is easy and convenient to get into it; it creates an imitative sense of new skills, abilities and opportunities. It makes us act different, as we can be whoever we want, talk about anything, with the sense of being protected behind the anonymity of nicknames. And, if your character failed to succeed, you can always erase it and create a new one. Psychologically, the amount of online freedom is unparalleled to the everyday reality, and it is just too easy to fall into this trap. The MMORPG addiction is there already, with numerous stories about people who get so sucked into the possibilities they would never get in their daily lives. In-game friends gradually replacing real interaction and work slowly becoming just a necessary prerequisite to pay for the bandwidth and the monthly fees. The escape is total, and, in any cases, it takes years to try to recover from. Talking to hardcore players online, some of them find a brilliant solution: instead of turning off the computer and going to the movies with their girlfriend, they instead introduce her to the game. On the other hand, an increasing number of divorces get linked to one partner spending an excessive amount of time online. Cyber cheating is no longer a science fiction term, but the source of a growing number of families breaking up.

Why people are escaping their daily lives is way beyond the scope of this essay, but it is becoming a reality we have to face, and a growing concern. Excessive stress,

inability to socialize or any other reason to want to run away now has an alternative to traditional solution. It is now possible to start your life afresh, at any moment, change your personality, gender and everything else imaginable. It is so easy that it really is becoming a huge attractive force, a cheap alternative to fight the real problems with real actions.

Something that is still treated as a game, a non-serious entertainment for teenagers is rapidly evolving to offer us an alternative reality, a multitude of alternative lifestyles to explore and populate. Powered by own dreams, consisting of everything one would like to do, they appeal to us because they are created exactly for what we would like to do, but sometimes as grown-ups can not confess.

With so many attempts to develop on-line economies, with virtual, in-game-only items having a sound monetary value, what is going to happen when the MMORPG GNP will grow to the point to surpass the ones of, let's say, some of the African states? Are we really looking forward the times when people will not only play online or spend their leisure time, but also earn money by contributing to the MMORPG economy. The only problem then is to try to figure out a solution for sleeping and eating online... but that is purely technical.

Are we ready for an otaku syndrome? William Gibson only some ten years ago⁸ described a "pathological techno-fetishist with social deficit", a Japanese-borrowed word of otaku. The main character spent the majority of his time living online inside a "Fortress", a multi-user domain, with connections to the outside world restricted to noodles and canned coffee. Now, daily millions of people coming back from work first of all dive into the alternative reality of Second Life, World of Warcraft, etc, treating it as their first reality.

As with any other invention, it is hardly ever possible to predict its impact until it happens. Have we created the biggest psychological, no physical damage, drug ever? What is going to happen when the online words become as commonplace as webpage access now? Are we really ready to gladly dive into the fairytales we have created, this time becoming part of the story, being able to realize our dreams? And, finally, with the ability to escape into virtuality, what are the implications for the society, and world, we live in?

Discussion

The symbiosis of games and the Internet, along with the never-ending quest for more computing power, has given us a new, as usually unexpected, combination. Disguised and so far tested under the innocent word of "games", it has the potential to change the way we live. A combination powerful enough to make it possible to experiment with breakthrough topics such as virtual communities and multiple

8 "Idoru" by William Gibson

realities. From simple simulations where a lot of imagination was needed in order to associate the bulky pixels on the screen with some form of alien spaceships that have to be exterminated to get to the next level, we have come to a situation when we whitened successful attempts to create whole worlds online, with their own economies, freedoms of self-expression, rules and driving forces. And all this, with the side note that the computer revolution has just begun, and in some ten years away the most modern equipment we are so proud of today will not even be good enough for a museum.

In these conditions, it is necessary to assess the influence that the inevitable development of virtual worlds is going to bring to our civilization. Their growth and the place that they will occupy in our lives is going to affect not only the way we spend free time, but will have an incredibly powerful influence on what we expect from life, what we are willing to achieve in it.

From the point of view of economy, it is necessary to start thinking about the situation when virtual products will start producing a significant share of GDP, and the implications of this. First of all, what GDP, if the virtual worlds are turning into quite independent places? Is it the territorial placement of the company that “runs” or controls these worlds is going to be used as a ground to decide the way to calculate taxation or GDP contribution?

With the imminent and already happening inter-dependency between what happens online, and the “old real” economy, how long till we face a situation when it will be easier to impose taxes on import/export between “reality” and virtual environments rather than solving the puzzle of an economy based on a worldwide chaotic activity within computer networks? But doing so will sooner or later create a situation when the economic independence of the virtual worlds might be the best solution, at the same time creating more countries, and even whole worlds, with the possibility to create some more on demand. If that ever happens, we will have to confess that the multitude of worlds can be as well achieved without costly space programs just by creating any world we need right here, on Earth. And if that seems too far-fetched, Second Life alone has a daily amount of transactions surpassing 600.000 USD⁹, which is, more than 220 millions USD per year. How long till a GNP of a game surpasses the one of a developing country, and what the implications?

The political developments are as puzzling, while exciting. Once the complexity of these worlds reaches a critical mass, will they require a controlling organ, a local police, a government? Will companies running them be entrusted with a God-like decision-making power, with capital punishment substituted for a life-long account ban? In conditions when some of the things we take for granted “in reality” will not be immediately applicable to virtual constructs (such as one citizenship per person, or social behavior rules, for example), will they become the ideal anarchy?

9 605.000 USD as of November, 5, 2006

Socially, we are entering a drastically new period of human development. The notion itself of the multiplicity of worlds and the multiplicity of identities is Earth-shattering. What is going to happen to the whole socialization ideas when, if dissatisfied, one can always seek refuge into a synthetic environment that does not enforce them? The gaming addiction, discussed above, is the first symptom of this trend. Why fight for reality, why choose a conventional logic if something neatly disguised as a game can replace it? So far, this did not really work because the “escape” in mass media could not last longer than a movie or a finite pastime where the final “game over” sign was a clear indication that it was time to get back.

Now, it is possible to leave the dream as long as the basic physical functions are satisfied, and the thousands of people that get trapped in this never-ending story are witnesses to the first symptoms that might hit humanity worse than any plague. Why live a life when one can live a dream?