

# VU @ SECOND LIFE\*– CREATING A (VIRTUAL) COMMUNITY OF LEARNERS

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## Abstract

In this paper we report on our experiences in creating presence for our university in the Second Life environment. After a brief explanation of our motivation(s), we will describe our approach, which resulted in creating a virtual campus acting both as a portal for information, and, more importantly, as a meeting point, offering the opportunity to create a virtual community of learners, in line with the overall educational policy of our university. We will discuss the merits of Second Life as an educational platform, and indicate relevant research perspectives. To illustrate how the virtual meets the real, an impression will be given of our encounters with the press.

## 1 INTRODUCTION

National and international companies are eager to have their regional headquarters in Amsterdam. The international reputation of Amsterdam with respect to its tolerance for sex and soft drugs has apparently been no hindrance to that. However, when the Vrije Universiteit (VU) Amsterdam announced its presence in Second Life as the first Dutch university, news items appeared, in among others Elsevier<sup>1</sup> which mentioned the senate's (2e kamer) concern with possible child abuse in Second Life immediately after announcing our university's presence in Second Life.

Why does a respectable university, like ours, want to be present in Second Life? And what are the prospects or benefits for an educational institute with a strong research reputation to be present in Second Life? Is it publicity we are after, the momentary attention of the press, taking profit of the (current) hype around Second Life, or are there more sustainable reasons that make such presence worthwhile, from both educational and research perspectives. In the following, we will address these questions, and give an account of the process that led to our presence in Second Life.

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\*[www.vu.nl/secondlife](http://www.vu.nl/secondlife)

<sup>1</sup>[www.elsevier.nl/nieuws/laatste\\_24\\_uur/artikel/asp/artnr/140574](http://www.elsevier.nl/nieuws/laatste_24_uur/artikel/asp/artnr/140574)

The structure of this paper is as follows. In section 2, we explain our motivation(s), and in section 3 we will outline the actual building of our virtual campus. In section 4, we will discuss the potential of Second Life as an educational platform, and in section 6 we will indicate relevant research perspectives. Finally, after briefly reporting on our experiences when going live, we will present our conclusions in section 7.

## 2 MOTIVATION – CREATING PRESENCE IN A PARTICIPATORY CULTURE

In less than a decade after the publication of William Gibson’s novel *Neuromancer*, the *metaverse* was realized, albeit in a primitive way, through the introduction of VRML<sup>2</sup>, introduced at the Int. Web Conference of 1992. Cf. Anders (1999). The German company *blaxxun*<sup>3</sup>, named after the virtual environment in Neil Stephenson’s *Snowcrash*, was one of the first to offer a 3D community platform, soon to be followed by *AlphaWorld*<sup>4</sup>, which offered a more rich repertoire of avatar gestures as well as limited in-game building facilities. However, somehow 3D virtual communities never seemed to realize their initial promises, and also the adoption of VRML as a 3D interface to the Web never really took off.

Beginning 2004, almost out of the blue, *Second Life*<sup>5</sup> appeared with, as is claimed in the official guide, Rymaszewski et al. (2007), a high adoption and low churn rate, now counting, march 2007, over 4 million inhabitants. The adoption of Second Life by individuals as well as companies such as ABN-AMRO, Philips and institutions such as Harvard is surprising, considering the cost of ownership of land, which easily amounts to 200 euro per month rent, after an initial investment of 1500 euro.

What is the secret of the success of Second Life? We don’t know! But in comparison with other platforms for immersive worlds, including MORPGs such as *World of Warcraft*<sup>6</sup> and *Everquest*<sup>7</sup>, Second Life seems to offer an optimal combination of avatar modification options, gesture animations, in-game construction tools, and facilities for communication and social networking, such as chatting and instant messaging. Incorporating elements of community formation, commonly denoted as Web 2.0, as exemplified in MySpace, YouTube and Flickr, the immersive appearance, and perhaps also the built-in physics and the inclusion of elementary economic principles, seem to be the prime distinguishing factor responsible for the success of Second Life. In addition, the possibility of recording collaborative enacted stories, Davenport (2000), using built-in *machinima*<sup>8</sup> certainly also contributes to its appeal.

What has been characterized as a shift of culture, from a media consumer culture to a participatory culture, Jenkins (2006), where users also actively contribute content, is for our institution one of the decisive reasons to create a presence in Second Life, to build a virtual platform that may embody our so-called *community of learners*, where both staff and students cooperate in contributing (science-related) content.

## 3 BUILDING A VIRTUAL CAMPUS

In december 2006, we discussed the idea of creating presence in Second Life. Our initial targets were to build a first prototype, to explore content creation in Second Life, to create tutorials for further content creation, and to analyse technical requirements and opportunities for deployment in education and research.

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<sup>2</sup>[www.web3d.org](http://www.web3d.org)

<sup>3</sup>[www.blaxxun.com](http://www.blaxxun.com)

<sup>4</sup>[www.activeworlds.com/worlds/alphaworld](http://www.activeworlds.com/worlds/alphaworld)

<sup>5</sup>[secondlife.com](http://secondlife.com)

<sup>6</sup>[www.worldofwarcraft.com](http://www.worldofwarcraft.com)

<sup>7</sup>[everquest.station.sony.com](http://everquest.station.sony.com)

<sup>8</sup>[www.machinima.org](http://www.machinima.org)

Two and a half months later, we are online, with a virtual campus, that contains a lecture room, a telehub from which teleports are possible to other places in the building, billboards containing snapshots of our university's website from which the visitors can access the actual website, as well as a botanical garden mimicking the VU Hortus, and even a white-walled experimentation room suggesting a 'real' scientific laboratory. All building and scripting were done by a group of four students, from all faculties involved, with a weekly walkthrough in our 'builders-meeting' to re-assess our goals and solve technical issues.

The overall style is realistic, although not in all detail. Most important was to create a visual impression of resemblance and to offer the opportunity to present relevant information in easily accessible, yet immersive, ways. Cf. Bolter & Grusin (2000). Our virtual campus, see fig. 1, is meant to serve as an *information portal* and as a *meeting ground*, where students, staff and visitors can meet and communicate.



Fig 1. (a) outside view

(b) inside view

## 4 SECOND LIFE AS AN EDUCATIONAL PLATFORM

The first idea that comes to mind, naturally, is to use Second Life to offer courses online. But, although we do have plans to give lectures (college) on law, probably including the enactment of a particular case, we do consider this approach as rather naive, and frankly we see no reason to include what may be considered an outdated paradigm of learning in our virtual campus, where there might be more appealing alternatives. Similarly, using the virtual laboratory for experiments might not be the best way to offer courses, although, again, we do intend to provide a model of a living cell, allowing students to study the structure, functionality and behavior of organic cells in virtual space.

Considering the success of our multi-disciplinary building team, it seems more worthwhile to take the cooperative effort of building as a model, and switch to a paradigms of learning in which in-game exploration and building plays an important role. It is no secret that many students enjoy gaming, and although some might think that *gaming is a waste of time*, many authors, including Gee (2003), seem to think that gaming and game-related efforts provide a form of *active learning*, allowing the gamer to experience the world(s) in a new way, to form new affiliations, and to prepare for future learning in similar or even new domains.

More importantly, due to intense involvement and the need to analyse game challenges, according to Gee (2003), gaming even encourages *critical learning*, that is to think about the domain in a meta-level as a complex system of inter-related parts, and the conventions that govern a particular domain, which Gee (2003) characterizes as *situated cognition in a semiotic domain*. Without further explanation, we may remark here that *semiotic domain* means a *world of meaning* that is due social conventions and patterns of communication. Cf. Kress & Van Leeuwen (1996).

Observing that both creativity and communication are vital elements of higher education, we envisage to deploy Second Life for a multi-disciplinary honors-track course that will focus on the communication

of scientific research, for example the impact of climate change and the various ways we can mitigate or adapt to the potential threats of global warming. In this way we can also contribute to the issue of *media literacy*, or *mediawijsheid*<sup>9</sup> as the Dutch Council of Culture calls it, that is making students aware of the impact of the media in presenting controversial issues. In this respect we strongly believe that Second Life does not necessarily lead to another screen-addiction giving access to dubious content, but that it can actually be deployed in a constructive way as an opportunity to stimulate and support active learning.

## 5 RESEARCH PERSPECTIVE(S) – VIRTUAL VERSUS REAL

Is decision-making in a virtual environment the same as or similar to decision-making in the real world? And what about investments? The Second Life economy, powered by Linden dollars and governed by the Lindex-exchange, provides an interesting platform to study decision-making behaviors, for example with a group of students in a course about decision-support systems.

Another way to establish a relation with reality is to provide a *virtual context* to objects existing in actual reality, such as cultural heritage, and for example relate paintings to the world they depict, which must necessarily be re-constructed in a virtual environment as it no longer exists, Rutledge et al. (2000).

In previous work, we did study the construction and deployment of humanoid intelligent agents, Eliens et al (2006), and we looked at ways such agents could provide an explanation in rich media contexts, Eliens et al. (2003), or guidance in finding locations in large virtual worlds, Ballegooij & Eliens (2001), Also did we explore whether virtual replicas of existing buildings, in our case museums, was the best way to provide immersive access to art-related information, Eliens et al. (2007), and actually we concluded that it was not! In one of such virtual replica, in this case the atelier of the Dutch artist Marinus Boezem, we studied the effectiveness of the use of an intelligent humanoid agent, and we found interesting relations between the appearance (looks) of the agent, and the trustworthiness of its advice, Van Vugt et al. (2006a).

However, apart from studying patterns of communication, and the way appearance and identity may influence communication, it seems at this stage more interesting to explore how to enhance communication in a shared virtual world by actually deploying virtual objects, instead of relying on chatting and textual information, and to design tasks that require cooperation in an essential manner. More generally, we would like to deploy Second Life as a platform for *serious games*, such as service management games, Eliens & Chang (2007), and we believe that for corporate institutions this might well be the real benefit Second Life has to offer!

Taking, however, a more critical look at Second Life as a platform for serious games, it might appear to be lacking in a number of respects, including (not the least important) security, programmability and robustness. As the failure of many of the early CSCW (Computer Supported Cooperative Work) applications indicates, cf. Churchill et al. (2001), to provide adequate support for collaboration is not easy, since a manifold of issues have to be resolved, such as turn-taking, gaze detection, etcetera. And in addition, for tasks that require strict timing, such as musical improvisation, Eliens *et al.* (1997), synchronization and time-lag have to be taken into account.

Taking these issues into account, we may wonder whether we should adopt Second Life, or rather seek refuge with an open source game engine such as Delta3D<sup>10</sup>, or a commercial game engine such as offered by the Steam-powered Half Life 2 SDK<sup>11</sup>, cf. Eliens & Bhikharie (2006), which might be more compliant with the extensions required to provide adequate support for serious cooperative games. Interestingly, the Second Life client has recently been given out to open source, and that would allow

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<sup>9</sup> [www.cultuur.nl/nieuws.html?nieuws\\_speeches.php?id=184](http://www.cultuur.nl/nieuws.html?nieuws_speeches.php?id=184)

<sup>10</sup> [www.delta3d.org](http://www.delta3d.org)

<sup>11</sup> [half-life2.com](http://half-life2.com)

for many client-side hacks, such as for example multi-modal interaction<sup>12</sup>, which in combination with the server-side scripting capabilities may result in powerful extensions.

At this stage, though, it might well be the level of adoption that is decisive in the choice of Second Life as a platform for serious corporate games!

## 6 HOLD YOUR BREATH – GOING LIVE

The 1st of march 2007, we went live. In the evening there was a news item on national television, RTL4 news, featuring the students showing the virtual campus and our project leader explaining the reasoning behind our presence in Second Life and how to give a course in the virtual classroom. A similar item appeared at AT5, local Amsterdam television, and various newspapers, among which Parool, Telegraaf and Volkskrant, spent a multiple-column article to report on our efforts. As a note, not surprisingly, all items focussed on what we have characterized as the naive interpretation of our efforts, exemplifying the old credo *the medium is the message*. To be clear, our intention is not to provide a virtual replica, nor to provide an analogon of the open university, in Second Life.

After the news broadcasts, the number of visitors increased dramatically, having stayed at a modest below 100 during the day, see fig. 2. In the evening, however, we suffered an attack from an army of Mario Brothers, after which we decided to close the campus for external (potentially malicious) visitors. So far, the results exceeded our expectations, the students were praised for the results of their building efforts, and as a team we may continue to think about how to deploy Second Life as a platform for education and research projects.



Fig 2. (a) visitors outside

(b) visitors inside

## 7 CONCLUSIONS

In this paper we have reported on our experience in building a virtual campus, giving our university presence in Second Life, and we have delineated the prospects of Second Life as a platform for education and research, embodying our university's credo: to be a *community of learners*. After enjoying our *15 minutes of fame*, however, we need to reflect on what technical requirements must be met to deploy Second Life effectively as a platform for education and research, and, perhaps more importantly, what paradigm of learning to adopt to have real benefit of the potential of Second Life.

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<sup>12</sup>[www.hackdiary.com/archives/000101.html](http://www.hackdiary.com/archives/000101.html)

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