Zen and the Art of Avatar Maintenance

A meditation on virtual worlds

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1. On virtual worlds

Over the last three years, VWW has observed classes, conferences, debates and seminars concerned with using virtual worlds in teaching and learning. The most striking element, over and over, has been the widely varying attitude that people display when confronted by an avatar which they need to operate (for want of a better word). Some people take to it with great enthusiasm; others recoil in dismay, horror or anger. In 18 years, the researcher for VWW hasn't ever seen such an extreme range of views, and emotions, when academics have been asked, or made, to use a particular ICT system or software.

Does this affect the teaching and learning potential for virtual worlds? Does it matter, or can these varying attitudes be harnessed in some productive manner?

1.1 Zen and the Art of Avatar Maintenance

In Robert M. Pirsig's famous book on philosophy, 'Zen and the Art of Motorcycle Maintenance', he, his son and friends spend their time riding motorbikes across America.

A key contrast early on in the novel lies between himself and his friend, John. Robert has detailed, self-taught, knowledge about his bike; what he calls a 'classical' approach. He knows how it functions, how it should sound, how to modify and maintain it, and how to get the optimum benefit from it. Robert views his bike as a machine of many functioning, inter-dependent parts, which he can modify and maintain. He knows how each part affects the other, and how to configure parts to suit the terrain he intends to travel through. When he is using his bike, he derives satisfaction from both the bike ride, and from his relationship to the bike itself. The bike is an intrinsic part of the bike ride.

John, on the other hand, takes a 'romantic' approach. He views the bike as a mysterious but essential machine which sometimes goes puzzlingly wrong, requiring the intervention of mechanics for repairs. He has no knowledge of how his bike works, apart from putting gasoline into it. Nor does he care how his bike works, nor wants to know; these things take time. Like John, he also views the bike as a machine, but just one that allows him to go biking, rather than as an interesting system in it's own right. He is baffled at the time Robert spends on learning about his bike and how to maintain it, rather than spending that time enjoying other things. The bike is just the thing that enables him to do the bike ride.

It's these two opposing views that one is reminded of when considering the attitudes that students and academics display when using virtual worlds such as Second Life. Some people take to it with enthusiasm, exploring every option available to them for configuring their avatar. These avatars are modified and maintained over time, with their 'owners' using new costumes and designs to see what they are more comfortable with. Each owner has a relationship with their avatar, which strengthens over time as 'they' share experiences - like Robert, and the relationship he has with his bike. The owner sees him or herself as being at one with their avatar, moving through the landscape as a single unity.

At the other end of the spectrum, some academics and students view the avatar as just a 'thing', an unnecessary complication when figuring out and using a virtual world. Few, if any, other items of software provide such a configurable entity as a three dimensional, movable, avatar. Time is spent frustratingly, grappling with this object and the myriad - possibly infinite - number of options available for configuration. The 'owner' views the avatar as an obstacle, or extra burden, to completing whatever they need to complete in the virtual world. The mindset is that of fighting the avatar, or at least getting it to point in the right direction. Frustration is increased by seeing other people having a more involved relationship with their avatar, customising it in increasingly bizarre ways, spending time enhancing the look of the digital creature, rather than seemingly carrying out the learning objective.

What does this mean? Some people, when encountering a virtual world, want to 'be'. Others just want to 'do'. Others still don't even want to 'do' that. Why?

1.2 Fear and Loathing in Virtual Vegas

Trying to dissect the fears and negative attitudes of academics who have used virtual worlds is not easy. For example, at a virtual worlds conference in 2009, one member of the audience stated that Second Life was 'just a game', the implication - strengthened by the use of the word 'just' - being that games were not 'worthy' of being used in teaching and learning scenarios.

When asked to clarify, or develop, his point further, the audience member was unable to do so and repeated that Second Life was 'just a game'. This wasn't due to any hostile atmosphere or fellow audience members - the conference was informally relaxed - but it was interesting to note that the otherwise articulate audience member could not add to his argument.

This lack of clarification has repeatedly occurred when people have been asked why they have an aversion to using virtual worlds. Often, it comes out as emotionally-charged statements about the virtual worlds and, sometimes, the people who use them. This, in turn, often creates hostility amongst virtual world enthusiasts, leading to a breakdown of the debate. Depressingly, this has been observed on a regular basis in UK academia for the last three years by VWW and others.

What proportion of people who use, or encounter, virtual worlds are negative about the experience? Anecdotal figures differ - and when people say nothing it is difficult to know their views - but from discussions with teachers who have used virtual worlds it appears that between a tenth and a quarter of students and academics hold negative views. That is a wide range, but a significant enough proportion to be an area of concern; a quarter of a class struggling with using a particular technology can cause us to question the viability of that technology in teaching and learning.

Having said that, it is unlikely that any one technology is universally liked by all students in all classes; to quote one respondent:

> "If we ditched every technology which someone just didn't want to use, then we'd be back to chalk and slate. Actually, someone would probably object to that too. In a job, you have to put up with using things you would rather not to get the job done, and it's arguable that education should reflect that."

Trying to figure out why these people have a negative experience of, or views on, virtual worlds is an enduringly interesting topic. And in some ways, these people are more interesting than virtual world enthusiasts. They are not usually luddites, and it's a mistake to refer to them as this, as many people with negative views of virtual worlds happily use other technologies, software and ICT systems. From observation (both by VWW and other academics who use virtual worlds), comments, and the more enlightened debates, there appears to be several reasons why some people do not like using virtual worlds...

Privacy and visibility of effort

In a typical or traditional classroom, students can actively participate, or take a 'back seat' approach (literally or figuratively), becoming detached from the activities of the other students. These students do not necessarily underperform; they choose to be more private, not putting up their hand, or participating in a debate. Other students can't see what they do, or the quantity or quality of their work, or how they have engaged in the learning process. This privacy is strengthened by the forward-facing approach to classroom arrangements; students who sit at the back have visual privacy from the students in front of them.

In virtual worlds, the privacy option isn't available for students. Avatars can wander and fly freely around, and see what other avatars are doing. On a particular area of virtual land, no avatar has privacy - everyone can see what they are doing (if they are doing anything), and can turn through 360 degrees, observing everything and everyone within a particular area.

Unlike in the classroom, eyes are not all facing forward, allowing those at the back some privacy - as in a virtual environment, there is no 'back'.

In addition, other avatars can see how particular avatars are being maintained, modified or enhanced - or if they are not. This is similar to the school the VWW researcher attended, where one day every academic year, pupils were allowed to wear what they wanted instead of the 'one look for all' school uniform. Some students liked this, as they could compare and contrast. Others hated it, and avoided break time on that day so their clothing wouldn't be judged.

Resentment at not getting 'it'

Related to this last point is that reluctant virtual world users are often thrown in with users or students who are more enthusiastic. These other students seem to be more confident in moving around, more communicative, and spend time configuring their avatars. Within a learning environment, this more enthused behaviour can appear wearying and off-putting to students who are more slowly developing their skills in-world, stumbling or shaking around in full view of other people (through their avatars).

After a while, this can grate and cause resentment. Even though the enthusiastic users are immersed in discovering all the options available to them, this behavior can cause negative feelings in the strugglers or reluctant virtual world users, and appear to be showing off. One comment from a student at Birmingham City University was particularly illuminating:

> "I still can't fly properly, I just fall, while everyone else is all 'Look at me! Look at me! I'm swooping and gliding!' I hate them all."

Wanting to just complete the task

Related to the previous two points, this comes back to the difference between John and Robert in how they viewed their motorbikes. Some students tinker with their avatars, optimising them as they see fit. Other students and academics have no interest in doing this. They do not see the avatar as a thing to be maintained and modified, and are baffled at others who do.

Like John, they just want to get on with the learning task or objective at hand, then move on. Learning how to adapt the avatar, adapting it, carrying out non-essential operations with it e.g. gestures, are merely distractions away from completing the task at hand. This builds another level of bafflement against people who spend time modifying their avatars; why do they spend time doing this, when they could be completing the task, or doing something else?

It looks like a game

This particular feeling is used in two different contexts.

- Some people do think Second Life is a game. This demonstrates a lack of understanding of digital games, but also serves as a reminder that, despite the seemingly ubiquitous nature of the Wii, DS, PS2 and Xbox, not everyone is familiar with this form of entertainment.

- Students, on computer science and games courses in particular, regularly have an issue with Second Life looking like a game - or rather, a very (visually) poor game in comparison to what they are used to through a games console.

In both cases, more cannier academics have made sure that the learning objectives are put up-front, so the students can quickly see how the virtual world can and be used for learning. Moving the student on from the (incorrect) concept of the virtual world as game, as quickly as possible, seems to be a key element of making virtual worlds work in teaching and learning.

In addition, as previously exampled, some people - even academics - do also have a problem with games being a useful, or serious, technology for learning. This has been a perennial issue

with games and learning, with an often deeply-held conviction that something which is (originally) designed for fun cannot also be an effective medium for people to learn in.

How is this learning?

In Zen, John became annoyed when his bike broke and needed fixing. John viewed enjoying the trip as the objective; when his bike broke down, this was a needless distraction from his objective. Robert's approach was different; he viewed enjoying the bike ride (and being aware of the bike) as part of the experience. John was baffled at Robert's mindset, his friend being interested by the bike instead of purely what he saw as the objective, the trip itself. He also could not comprehend, or empathise with Robert's explanations of the bike, nor his dedication to it. How is spending this time useful?

The same attitude and bafflement is apparent with some users of virtual worlds. How is using a virtual world 'learning'? Surely being interested in, obsessed with, the technology is a distraction, and not an enhancement, to the objective, which is to learn / pass the course / get a good grade?

This problem becomes worse when virtual world enthusiasts try and explain how virtual worlds are useful in teaching and learning. The nature of the medium is that there is no solely quantitative explanation; virtual world experiences are intrinsically qualitative in nature; learning is typically by doing, seeing, sharing and communicating. If an academic wants, or expects, an explanation that is 'checkbox' in nature, such as "Virtual world use will help students learn facts X, Y and Z", then the response they will receive will often disappointment. Seeing virtual world enthusiasts enjoying their activity often compounds this disappointment.

This is too much hard work

Some people are lazy. It's just a fact of life, and manifests itself at any age. Some students want to do the bare minimum to pass their exams (if no students were lazy, then plagiarism would not exist). Some older people reaching retirement age want a quieter life, and to edge towards the end of their career without needing to master any radically new knowledge or skill. And we all would like a relaxed day.

Virtual worlds are not for the lazy. The rewards are arguably greater, though more difficult to define, than by using many other technologies in education (this alone is a point of long-term debate, and on which the research base is unclear). The trade-off for these rewards is the effort that the user needs to put in, both initially to acquire the basic skills, and further on to communicate and socialise effectively.

1.3 The bike, and the bike ride

So what does all of this mean? Well, I don't really know and I'm hoping that you, the reader, will have an idea or two. Feel free to leave a comment on the VWW blog entry for this report.

What is clear is that different people bring radically different mindsets to virtual worlds, especially Second Life. One doesn't see people protesting in a classroom when they are confronted with a book, pen or some other implement that they use, while virtual worlds - in an academic context - seem to bring out the best, and worst, in some people.

These different mindsets, approaches, prior experiences and fears which people bring to virtual worlds such as Second Life - arguably especially Second Life - influence their experience. In a recent snapshot report, Kate Boardman[1] took the view that teaching and learning activities shouldn't be compromised for the sake of people who have the wrong mindset for the technology.

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[1] Kate Boardman, University of Teesside.

"We've learnt that kinaesthetic and visual learners can get a lot from activities in virtual worlds, so we shouldn't be put off by those who say some people will 'never get it'."

This seems logical; we can't use only those technologies which everyone within the learning situation, without exception, 'gets'. But it doesn't solve the problem of those students who see the virtual world, and the avatar in particular, as something which hinders or distracts from their learning experience, rather than something that helps them attain it in ways that other technologies may not.

Perhaps one way is to convince - where possible - the student that this is a learning experience that may be unique to them, and that their normal concepts of 'fail' and 'succeed' should be suspended. Perhaps grouping students into differing levels of ability may help. Or, taking an alternative approaching, buddying-up a skilled virtual world enthusiast with a reluctant avatar user. Perhaps the root fears need to come out and be dealt with before the virtual world is encountered, especially if long-term use of it is planned.

Or perhaps, like John and Robert, there needs to be a mutual understanding and acceptance. One person is there just for the learning (travel) experience, while the other is there for the avatar (biking) experience. John and Robert enjoyed their trip together, despite their differences; can't virtual world enthusiasts and detractors do the same?

2. On trends in virtual world use

Virtual World Watch has produced eight snapshots over three years. From these, conversations with academics, and observations of activities, the following trends are evident:

- The number of academics in UK Higher and Further education who use virtual worlds is steadily, but slowly, increasing. As some academics fall away, slightly more take their place.
- The core community of academic developers also slowly grows.
- A growing number of academics, and UK universities, have used virtual worlds for several (not just one) academic years.
- Nearly all virtual world activity in UK academia is in university-based Higher Education. A very small amount happens in Further Education, and a smaller amount still at the level of school-based education.
- The technology is not 'mainstream' or ubiquitous in the same way as a blackboard or PC. Neither will it probably ever be. This is not an issue or problem, though; many technologies in the education sector have specific purposes.
- Virtual Worlds are not used for sweeping, broad, subject areas, such as Maths or English. Instead, they are most successful when used for 'niche', highly specific and visual subject domains, such as midwifery, law court training, and health and safety awareness. Subject areas which also rely on the passing of information and knowledge-heavy constructs, such as information science and languages, are also finding applications for virtual worlds.

An analysis of the eight snapshot reports, plus some of the responses to calls for information in that time, gives indications of other virtual world trends in UK academia.

2.1 Campus replication is a declining activity

The earlier snapshots reported the building of many university campuses in Second Life. The first one, from July 2007, reported that Anglia Ruskin University[2] were in the process of designing their campus:

> "The university has recently bought an Island and we are actively involved in this development and trying to decide what the look and feel for the virtual campus should be."

...in addition to Coventry University[3]:

> "Yes, our VC is very enthusiastic. The VC has his own avatar and will be launching the island at a large event on 13th Sept, in RL and SL … the island is being used by all departments in the university pretty much, as well as marketing and alumni."

Searches on the main grid map for that snapshot revealed several other islands which were named after Universities, such as Sunderland and Oxford, indicative of developments of institutional presences in Second Life.

As snapshots progressed, so evidence of replicating buildings from a university campus into Second Life declined, possibly as funding for this purpose became more difficult to justify, maybe as people became more inventive and purpose-oriented in their developments.

2.2 Access to virtual worlds has gradually become easier

Responses to the earlier snapshots were frequently filled with negative anecdotes, and frustration, regarding the accessing of certain virtual worlds from inside an academic

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[2] Mike Hobbs, Anglia Ruskin University.

[3] Maggi Savin-Baden, Director of The Learning Innovation Group, Coventry University.

institution. Second Life in particular, due to firewall issues and the need to re-install a viewer (often on a regular basis), was problematic. Several earlier respondents to snapshots gave up attempting to use virtual worlds in their university purely because of these issues, while others, such as Gilly Salmon (2007)[4] carried on:

> "Currently we can't access Second Life from the university campus or machines on the network. IT are trying to find a solution to this."

However, some major institutions still have problematic access issues with virtual worlds, such as Southampton University[5]:

> "We have not expanded; we are waiting for the projects to complete so that there is feedback to guide us on the future uses of Second Life. So far, it does seem that there is reluctance to take anything forward as there seems to be such a learning curve to get into the software in the first place. Also, the technology does form such a barrier on a massive network such as the one we operate. For example, just this week, I tried to test a machine to do a little bit of training and the machine said that an update was required and that I was unable to do it as I did not have admin rights for that machine.
>
> That type of thing becomes a huge problem when all the University desktop machines (in all common learning spaces) have Second Life installed on them. Each time a user logs in, the installation begins, and this means that they would all be calling our IT people at the same time. The issue of the update isn't insurmountable, but its another barrier for educators to have to get over."

2.3 Much academic effort is still voluntary and/or substantial

A constant theme is that many UK academics carry on their academic virtual world activities at home, during weekends and evenings. Here's David Jukes from 2007[6]:

> "Not completely finished the sim yet but in total to put in the terraform, planning and building a total of 1,000+ person hours has been recorded. There are two people working on the build, one during the day and one in the evening.
>
> This was mainly due to not having all the skills necessary at the start to achieve what we wanted. This is actual work and not the research and visiting other sims for ideas and inspiration. Personally, I spent over 1500 hours being in-world understanding social interactions between October 2006 and May 2007, to get to grips with how SL works to hopefully help realise the full potential of what we / I could achieve.
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> All this was done mainly outside official work hours as I am a full time lecturer and program leader."

Robert Ward from 2009[7] estimates:

> "Guestimate - about 8 hours a week over the past two years."

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[4] Gilly Salmon, Leicester University.

[5] Fiona Grindey, Education Development Adviser, Learning and Teaching Enhancement Unit, University of Southampton.

[6] David Jukes, Business School, Nottingham Trent University.

[7] Robert Ward, Division of Psychology, University of Huddersfield.

...while Tony Ackroyd[8] also estimates his time:

> "Very difficult to measure. 50 times 6 hours actually developing, 50 times 9 hours learning and discussing."

These figures are not wildly excessive, and many other respondents indicate or state that they spend several to many hours per week on virtual world developing. On the one hand, this means they enjoy it; on the other, it indicates a lack of resources (time and funding) within the institution.

2.4 There is never enough funding

Related to this last point is the constant need for more funding, the subject of which waxes and wanes - but never goes away - as the snapshots progress. One regular respondent, from May 2008[9], notes that:

> "Funders are always welcome. That's the question I am asked most at my seminars and workshops - 'where can I look for funding?'"

2.5 Attitudes to virtual worlds in learning are (gradually) improving

The May 2008 snapshot was the low point in terms of negative comments, from academics, about the attitude of their peers to virtual worlds. Feedback on how their peers viewed such technologies included:

- Generally a gimmick, though I think a few places who innovate are trying it out.
- Some are intrigued. Some don't care. Some think it's a flimsy excuse for dubious online activities.
- Hatred of any new technology by those within a decade of retirement.
- Mainly with suspicion. To many lecturers, it simply looks too much like a video game, leading to negative assumptions.
- Do you know how [expletive] off I am with people who, on being told about Second Life, respond with 'Maybe you should get a First Life?' Like, they're the first person ever to think up that devastatingly witty reply. Oh how we laugh.

As the years rolled on and more snapshots were produced, less comments about the negative attitudes to virtual worlds from other academics were submitted. In some cases, this is possibly because academics gave up trying to operate in a hostile environment. Overall, comments about peer attitudes became more positive; this type of comment, from Bex Ferriday[10] in 2010, is more common than it used to be:

> "Use of the island continues to grow and attitudes towards this virtual world as a teaching resource appear to be growing ever more favourable. While the island lay empty people couldn't really see the point. Now that things are starting to happen and both filmed and photographic evidence in available for all to see on Flickr and YouTube, minds are slowly changing and the pace is picking up."

2.6 Alternatives to Second Life are constantly being explored

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[8] Tony Ackroyd, Multimedia Programme Leader, University of Greenwich.

[9] Fiona Littleton, Educational Development Advisor for Second Life, Edinburgh University.

[10] Bex Ferriday, Lead Teacher, School of Education and Training, Cornwall College.

Second Life has always been the predominant virtual world of choice. However, some academic virtual world users have been keen to experiment with other virtual worlds for several years, for different reasons. In 2010, Ian Truelove[11] at Leeds continued to use OpenSim:

> "The pressures of running a large undergraduate provision have left little time for virtual worlds lately. However, having ultimate responsibility for the learning of 330 students does tend to focus the mind on the practicalities of scaling up the use of virtual worlds in a real world educational context. Motivated by its potential scalability and configurability, I have redoubled my efforts, and have finally got my OpenSim grid up and running. It's currently only running behind the university firewall, but it's working exactly as I had hoped.
>
> I can pre-register all of my students, which cuts out the nightmare prospect of a Second Life registration session multiplied by 330. I can get student's real names floating above their new avatar's heads, which helps them to make the connection between avatars and their real life puppet masters, and avoids premature fantasy identity overload. I can avoid the complications of noob-learners making fools of themselves in front of rude strangers and, most importantly for design students, I can get them building things straight away."

At the same time, Daniel Livingstone[12] at the University of the West of Scotland continues to use several virtual worlds:

> "I was disappointed when Metaplace closed at the beginning of the year - as we had used it previously (although not heavily) and it was enjoyed by students. SmallWorlds fills a similar niche - but without the opportunities for content creation. It does seem to have a stronger business model though, so for people looking for isometric, flash based virtual worlds for online discussions and activities, it should do the job. Like Metaplace, it seems to lack some of immersive qualities of a 3D virtual world - but some students do take to it.
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> The new viewer for Second Life (Viewer 2) does look like it will make life easier for newcomers to Second Life. While it has its own issues, I am hopeful that it will help overcome some of the initial challenges. But when it comes to new user experience, Second Life could really learn a lot from SmallWorlds - which is full of 'quests' and challenges that introduce users to the worlds and features of the interface. But they have improved a huge amount - including improved lists of recommended locations to visit."

2.7 Academics who continue to use virtual worlds are persistent

This may be self-explanatory, but academics who use virtual worlds over a long period of time are relatively persistent, having faith and dedication in the technology they are using, and accepting that it isn't an 'easy ride'. This is exemplified by Simon Bignell[13] in late 2009:

> "It's an ongoing process of development and rethinking. The use of virtual worlds for education isn't a linear route to a satisfactory end result. It's a slow series of increasingly less spectacular failures."

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[11] Ian Truelove, School of Contemporary Art and Graphic Design, Faculty of Arts & Society, Leeds Metropolitan University.

[12] Dr. Daniel Livingstone, Lecturer, School of Computing, University of the West of Scotland.

[13] Simon Bignell, University of Derby.

This persistence manifests itself into the increasingly long-term view taken by some institutions and departments, such as at the University of East London[14]:

> "We plan to be active in Second Life with all of our current activities for the next year at least."

Persistence and long-term plans are manifesting themselves into virtual worlds being used across several departments in some universities. In the snapshot from the Spring of 2009, it was noted that the Open University, Edinburgh and Coventry, have many groups, courses and departments using virtual worlds as a central technology for teaching and learning activities, e.g.

> "Virtual worlds have become a core technology for our teaching, learning, research and collaboration."[15]

Other universities, such as Lancaster, Teesside, Southampton Solent, Glasgow Caledonian and Strathclyde, are also developing a significant virtual world presence, e.g.

> "Lancaster University's long term plans are grand. We are laying the ground work for more courses to be taught, more students to have access and more research to be conducted."[16]

2.8 Virtual Worlds are increasingly used to connect distant people

Again, this is an obvious point, but it's one worth remembering. For example, Second Life will be used to connect University of Worcester[17] students with students from the USA:

> "We will be taking a few students in to Second Life this January to engage in shared learning with students from Ball State University in the USA. This activity is being used not only for this small group of students to meet with the Americans but for us to evaluate our support practices for students and staff."

The Open University[18] is one of several which uses Second Life for research-supervisor meetings:

> "A couple of my part time PhD students don't live in England, and are able to travel to the university's campus for a face-to-face meeting only once or twice in a year. We regularly meet in Second Life for supervision meetings."

It's here that, perhaps, virtual world advocates and developers within the academic community have their 'trump card'. Traveling to meetings, even major events, is becoming steadily less feasible due to a 'perfect storm' of dissuading factors:

- The recent Icelandic volcano ash dispersal making people realise how out of their control travel logistics can be.

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14 Rose Heaney, Learning Technology Adviser (UELconnect), Schools of Psychology and Health and Bioscience, University of East London.

15 Fiona Littleton, Virtual Worlds Development Adviser, University of Edinburgh.

16 Michele Ryan, Department of Management Learning & Leadership, Lancaster University.

17 Tim Johnson, Senior Lecturer, IHS, University of Worcester.

18 Dr Shailey Minocha, Department of Computing, The Open University.

- Long-term strikes, by major[19] and minor airlines, as well as airlines going bankrupt, are also making travel plans less certain.
- Travel costs are increasing, especially as airlines face higher taxation and the pound continues to be historically weak against the US dollar and Euro.
- The country is deep in debt; cuts in education and research funding are highly likely. It will be more difficult to justify a junket to another country when there's a shortfall in funding for staff wages in the same team.
- Universities are increasingly obtaining revenue from distance courses and students who live remotely from campus.

These factors all add up to an increasingly persuasive argument for a much greater use of technology in remote teaching, learning, education, meeting, communication and research. How, and to whom, this argument should be made is unclear.

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[19] Daily Telegraph article on British Airway strikes this summer: http://is.gd/csc9l

3. On the Virtual World Watch service

In this section, we take a look at what the Virtual World Watch service is and how it has functioned.

3.1 What is a service?

A service may seem like an obvious 'thing', but in the academic digital media world, it is perhaps not.

In this particular sector, most services start out as projects. For example, the OMNI and SOSIG projects from the early 1990s became subject gateway projects, and then services. These were rolled into another service (the Resource Discovery Network), which was transformed into another service (Intute), which eventually wound down. Along the way, the regular tension in branding, rebranding and reorganising lay in justifying and defining the service as something that was needed, and provided value for money for their funders.

Over the last 15+ years, many *projects* have struggled to define and redefine themselves as a *service*. It isn't just about the issue of funding, though funding does, of course, pay staff wages. There is an over-simplistic, but still widely held, view that a project occupies a fixed length of time and amount of funding and produces something of experimental quality, while a service has a more long term and continual funding cycle and produces something of consistently high quality. In UK academia, there are many examples which arguably go against this assumption.

It is perhaps clearer to think of a digital media service in terms of 'audience' and 'needs':

1. An audience is defined.
2. Specific needs of the audience are defined.
3. These needs are met, in terms of information, product, or online or offline service.
4. The audience is made aware of the service.
5. The audience uses the service. They are happy with their needs being met, and use it repeatedly.
6. The information, product or services provided are maintained to a sufficiently high quality.
7. Return to step 4.

3.2 So what is the Virtual World Watch service?

Virtual World Watch started, in the spring of 2007, out of a mutual point of interest. Andy Powell (Eduserv) and John Kirriemuir were both interested in the extent to which virtual worlds were being used in UK Higher and Further Education - basically, the universities and colleges of Britain.

This resulted in a report in the summer of 2007 which we labelled a 'snapshot'. On reflection, this title is slightly misleading as the report (and future editions) only presents a view of the data submitted and / or collected, rather than a comprehensive overview of UK activities.

The snapshot proved unexpectedly popular in terms of downloads and publicity. Academics used it to find out what was going on with virtual worlds in UK Higher and Further Education. Several academics used it as the basis of justifying, internally and externally, why they should receive funding for similar activities.

Several more snapshot reports followed. In the autumn of 2008, VWW received support from Eduserv to turn the reports into a more holistic, joined-up service.

Applying the previous model of 'audience' and 'needs' to the Virtual World Watch service gives the following:

1. The audience consists of UK academics using, or interested in using, virtual worlds in teaching, learning and / or research.
2. The audience requires information such as:
   - An overview of the UK academic virtual world scene.
   - Specific examples of virtual world use.
   - Resources to help make an informed decision on how, and when, they can and should use virtual worlds.
   - Information to help make a stronger case for funding.
3. The information needs of the audience are met in the most useful way (for the audience), within resource constraints.
4. The VWW service is promoted to the audience.
5. The audience use the VWW service, and provide feedback.
6. Updated and new information is regularly made available by VWW.
7. Return to step 4.

From a key process perspective, Virtual World Watch consists of:

- Collecting data (so step 2 can be carried out).
- Disseminating information (step 4).

We'll now look at these two activities in more detail.

3.3 On data collection

Without the wood, there is no tree; without data, there are no Virtual World Watch snapshots. Data collection comes in three forms:

3.3.1 Searching virtual worlds

A minority of virtual worlds offer some searching facilities; of those explored to date by VWW, only Second Life has a search system of any depth.

Unfortunately searching even Second Life is very different from searching the web using something like Google:

- The search algorithm and engine for e.g. Second Life and Google are very different.
- While Google does not index the whole web, Second Life indexes the whole of Second Life...
- ...but it can only index what it has. This causes problems when, as opposed to most websites, people use secondary names for their avatar, group, island or educational network, as people searching Second Life need to know what the secondary name is in order to find it.

This last point is the troublesome crux of finding information in Second Life. The search engine does make use of metadata, thankfully. For example, searching on 'Sheffield' brings up the Infolit iSchool place, because Sheila Webber included a reference to the University of Sheffield Department of Information Studies in the description.

However, the detailers of many groups, events and places do not provide adequate descriptions for their constructs to be easily found in Second Life. This is compounded by the uncertainty of searching i.e. not being sure, if there are no results, whether the thing you are looking for really exists, or not.

Another problem with searching virtual worlds - and especially Second Life - is when areas have restricted access, or are private. This occurs with several UK university developments on the grid. Though some information can often be gleamed as to the nature of the area, there often isn't enough to identify a (real world) person to contact about the development.

VWW has spent **many** hours experimenting with the search facilities in Second Life. Visually, results have improved in how they are displayed due to the new viewer. However, the

aforementioned problems - which are not entirely the fault of LL, but more because of how the virtual environment has developed - has made searching for new educational areas a frustrating affair. One technique, developed early on, is the 'Two island hop'; if you identify an island that is of particular interest, then look at all of the surrounding islands up to two away; you will often find other islands that match the same interest.

VWW sees the indexing and searching of virtual world content as a primary research area of interest. It is intending to pursue this as a more formal track of research, which will hopefully help support the VWW website / service.

3.3.2 Searching the Internet

Searching the Internet has often provided clues about virtual world developments in UK academia.

'Brute' google searching alone is not always productive, with many resources presenting themselves for inspection in the results. In addition, searching university and college websites is also counter-productive, as many either index content poorly, or return results that are not helpful.

However, combining these two approaches has resulted in the most effective way of locating academic virtual world activity outside of exploring virtual worlds. Google allows people to search the contents of individual sites; for example, the search:

"second life" site:.bath.ac.uk

...returns 82 results, most of them relevant to the subject of 'Second Life', from the website of the University of Bath. Searching the university website using the search options on it returns only 35 results, not all of them relevant.

Websites are not the only source of online information. Others have included:

- Blogs: the VWW site lists many of those maintained by UK academics active in virtual worlds, though these tend to usually give information about their own, and not other people's, activities.
- Presentations: the Slideshare website is a major source of presentations, though the search facilities are a barrier to easily drilling down to relevant content. This is a pity, as roaming through the content gives the impression that there may be a lot of new material in there, if it could be more easily located.
- Online newspapers: these have been, largely, a disappointing source of information about academic virtual world activities. A smaller group of academics are highly effective in getting press releases and general information about their activities into the national media, though much of it (by the time it has passed through the hands of editors) has had genuinely useful content removed.
- Social media: there are numerous groups on e.g. Facebook dedicated to virtual world developments. Periodically, VWW checks out the contents of some of these, but finds little unknown UK activity, with an overwhelming concentration on US academic developments.

3.3.3 Asking previous correspondents

The backbone of the snapshots are content from UK academics themselves. For most of the snapshots, a call for information has been put out, which results in text responses.

Contributions range in style from informal and frank, through formal, and to content similar to press releases, or slightly elongated CVs. However, most of the contributions are of the former, not the latter, which has led to the snapshots being recognised as, for an academic publication, an often entertaining read. The length of content also varies dramatically between respondents.

VWW has tried to minimise the amount of editing of responses received from UK academics, though occasionally personalised negative responses have had to be significantly edited or rejected. These have tended to be academics 'ranting' about their lack of access to virtual worlds, either through the decisions of a (named) manager, or through their institutions IT services. Requesting a rewrite or rewording has often helped here.

Strong language rarely appears in responses from academics; when it does, it's edited out.

3.4 On dissemination

One problem with disseminating the same news item, or report, through a range of media is that many of the core group of academics interested in virtual worlds maintain a multiple presence across all of these media. For example, at a virtual worlds conference in Sunderland 2009, it was discovered that all bar two of the (many) speakers maintained a Twitter account, and many followed each other.

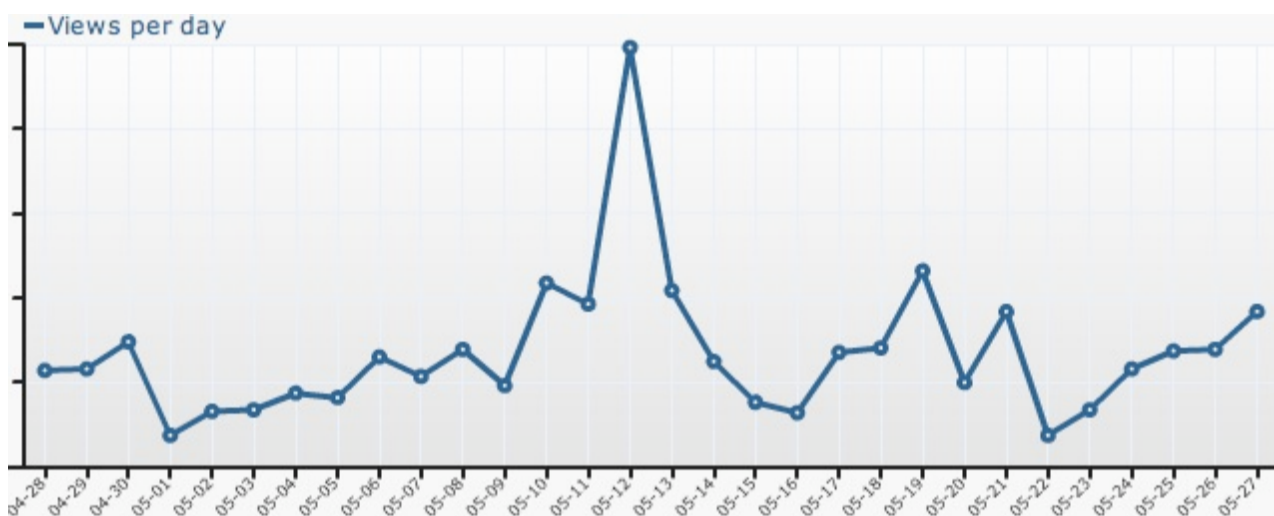VWW uses, and has experimented with, a range of media, with varying results.

3.4.1 The VWW website

The Virtual World Watch website is the core point of dissemination; much of the other methods of dissemination point to content on it. The website contains:

- The snapshot reports.
- Other reports.
- Blog postings of examples of virtual world use in academia.
- Audio files (podcasts).
- Pointers and links to other resources.

The website is a Wordpress installation, hosted by 1and1. Bandwidth has been increased several times to cope with rises in traffic as each snapshot report was mounted, causing a spike in downloads.

Accesses and downloads have not been consistently tracked through the life of the VWW website, which is a regrettable oversight. What is very clear is that snapshot reports especially result in a sudden 'spike' of downloads, measuring a few thousand for one day, before falling back. The following graph of access stats for the month from the end of April 2010 shows this (irritatingly the scale is missing on the side; each notch represents 480 accesses, so the 12th May, when a report was made available, resulted in 2,400 accesses to the website):

The website has been mostly easy to maintain, though technical issues in August and November 2009, and May 2010, have highlighted that there are gaps in the technical skills of the VWW researcher. As the problems in May 2010 have been particularly severe, so VWW has to address the issue of technical support for the website.

The format of material has been the subject of some debate. Opinions are divided. Some people prefer the 'dead tree' format of PDF, even though the snapshot reports can be quite long, resulting in much printing. A smaller group would like to see a more open alternative, such as XHTML. At the time of typing, VWW has experimented with this format but, again, has found technical considerations to be somewhat taxing.

3.4.2 Social media

'Social media' services were used to varying degrees of effect. The main advantage of these is that they are free and require little maintenance - though to use to full effect, the sustained entry of content into these services is required.

A **Facebook group**[20], Virtual World Watch, was created. At the time of writing, the group has a modest 68 members. Activity from members is minimal, but the ethos of facebook groups generally seems to be that people join them and, in most cases, forget about them. Advertising of snapshots has been done through the group, but with no discernable effect on snapshot or report download figures.

A **twitter account**[21] was set up in the second stage of the project. This was used primarily to disseminate information about VWW, such as snapshot requests for data, or reports being live. It's also used for occasionally retweeting virtual world 'stuff' of relevance to UK academics, especially pointers to relevant information and events outside the UK (whereas the focus of the web site is on UK matters).

Twitter has been useful for finding some academic virtual world information; 66 accounts are followed by VWW, and 5 lists set up to try and organise these better. VWW is followed by 174 accounts, most of these academics or virtual world services. 192 tweets have been twittered; VWW has been careful not to spam or over-tweet.

It has been interesting to note VWW website traffic when relevant tweets have been made. Tweets by VWW about e.g. a snapshot going live do not cause a very large spike in accesses. However, tweets or retweets by other people sometimes do greatly increase traffic. For example, the quickest and largest spikes in downloads of snapshots have occurred when Andy Powell[22] has tweeted that they are available (either directly, or by pointing to an associated blog entry). This is possibly a combined function of the number of followers (>1,200 in his case), the credibility of the twitterer, and the demographic of followers. It may be worthwhile for VWW to cyclically identify and nurture more of these PRT (Power Re-Tweeters), as their level of dissemination may be more effective than what VWW can manage alone.

A **Flickr group**[23] was established a while ago. This contains screenshots of virtual world use in UK academia. The early material was submitted by VWW wandering around various UK academic developments in Second Life. However, most of the contents have been submitted by other UK academics; currently, there are 47 members who have contributed 298 screenshots. This has been the most quietly satisfying use of social media by VWW, mainly as it is a community effort that has worked. Access views for the screenshots varies wildly, from single digits for some to 2,585 for one of Brunel University in Second Life[24].

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[20] Virtual World Watch Facebook group: http://www.facebook.com/group.php?gid=53954582840

[21] Virtual World Watch Twitter account: http://twitter.com/V_World_Watch

[22] Twitter account of Andy Powell: http://www.twitter.com/andypowe11

[23] Virtual World Watch Flickr group: http://www.flickr.com/groups/slsnaps/

[24] Screenshot of Brunel University in Second Life: http://is.gd/cby4O

Google Buzz and **Google Wave**. VWW took a look at these, but after some experimentation, could not see how either tool could be used to increase dissemination. VWW is open to any reasonable suggestions of how these tools could be incorporated into future dissemination.

3.4.3 Presentations

In the 'Real World'

Depending on the criteria used for public presentations, VWW has undertaken between 11 and 14 to date. Audience sizes has ranged from between 20 and 250. All presentations have so far taken place in the UK (2 in Scotland, 1 in Northern Ireland and 11 in England). Very roughly, the total audience to date has been 1,500, of whom the large majority are UK HE academics, followed by FE academics, students, and non-academics.

Presentations are the most intense form of dissemination resource, in terms of time. A stack of slides takes at least a day to prepare; adding on other preparation time, plus travel, presentation and event time, usually results in several days being allocated to one presentation.

There is an element of 'preaching to the converted' in some presentations, with the previous experience of, and attitudes to, the virtual worlds by the audience usually becoming apparent during the questions and answers.

The quality of questions from non-virtual world users in audiences has varied wildly. It's been apparent on several occasions that some people come to virtual world events with an open mind, and a smaller number with a closed 'I'm not buying it' attitude, no matter what the quality or relevance of the presentations are.

This leads to a conundrum; preaching to the 'converted' on one wing, and closed-minded people on the other, is effectively a waste of time. Identifying events which may be attended by:

- People who have not used virtual worlds previously.
- Open-minded academics.
- People who require data on trends, and examples of best practice.

...would be a more sensible use of presentation resource in the future.

In Second Life

VWW tried conducting two presentations in Second Life in the early days of the project - one before voice and one after voice was introduced - but found the experience dispiriting, with many technical, logistical, data streaming and audience participation problems. This was decidedly off-putting, and VWW (ironically) turned down several requests to do presentations in this particular media and virtual world until recently.

On April 25th, VWW did a presentation on the Sheffield University island (hosted by Sheila Webber from the Department of Information Studies). This worked surprisingly well, the only part needing assistance with being setting up and incorporating the presentation. Some observations:

- Doing a presentation in Second Life is intense, as one is distracted by the backchannel and people messaging during the presentation. Focus is required, as well as a resolve about which communications will be dealt with while presenting, and which will be ignored.
- Some people don't like using 'voice', or (because of their equipment, real world location, or disability) cannot handle it. Unless there is a prior agreement that it's a voice-only event, provision for these people needs to be made.
- The new Second Life viewer is more intuitive, easier and quicker to use than the old viewer when presenting.

<u>Slideshare</u>

However, one large bonus of presentations is the ability to quickly put them online for anyone else to read. VWW has an account[25] on Slideshare, where seven presentations to date have been mounted. These have resulted in 3,517 views - more than twice the audience than at 'live' presentations, though the proportion of views from UK academics is probably much smaller.

Slideshare has the major advantage of the content already, usually, being in existence, as it was created for a real world presentation. Therefore, making this available online is a resource effective form of dissemination. In addition, presentations can be replaced with updated ones without a loss of views, comments or external embedding, which has been useful as the political climate changes.

3.4.4 Audio dissemination

Podcasts were attempted in the Spring of 2009, with a weekly "Start the week..." podcast being produced by VWW. This usually entailed an interview, over the phone, microphone or Skype, with a UK academic. Content ranged from an update of their recent activities, to student perceptions of virtual worlds, and the future of this particular media.

Downloads of each podcast, not surprisingly, peaked on the day of launch and quickly subsided, though most of the podcasts still get several hits per day, with all having several hundred downloads each. Partial web use data indicated that most of the downloads were to UK academic addresses, with most of the remainder to the US.

Production of sixteen podcasts was done under rather extreme practical circumstances in terms of location and experience. One podcast, for example, was ruined by cows stampeding at the worst possible time, another by the sound of nearby gunfire in Detroit. Producing high quality material proved difficult, due in some part to the inexperience of VWW in this media and a certain amount of naivety at the start ("It's just a sound file; how hard can this be?").

Despite some external help cleaning up the files, feedback from listeners was roughly split between:

• This is interesting.
• The sound quality is variable or poor.

Relocation to the US for the summer of 2009 made further production of quality podcasts more difficult (lag, and time zone issues), and it was decided to halt the podcasts until something with a more acceptable quality could be produced. Recently, VWW has been experimenting with Audioboo[26] which seems considerably easier and quicker to use, resulting in acceptable quality sound files hosted by someone else. VWW may use this particular audio service in the near future.

3.4.5 Peer-reviewed publications

This proved to be the most frustrating form of dissemination. During the project, several offers were received by VWW to write articles or papers for peer-reviewed journals. Most of these were turned down, sometimes due to VWW having a lack of robust data, the relevance of the particular journal, or because there were UK academics who could write a better paper.

VWW initially accepted invitations from three journals to write articles.

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[25] Virtual World Watch on Slideshare: http://www.slideshare.net/VirtualWorldWatch

[26] Audioboo: http://audioboo.fm/

One of these[27], *UK university and college technical support for Second Life developers and users*, has just been published in the June 2010 edition of Educational Research. This was written in the summer of 2009, and therefore some of the information within is out of date.

A second article was submitted to a journal, but then withdrawn by VWW as it contained information on several virtual worlds which were closed down between when the article was written and when it was scheduled for publication (15 months later). This is a continuing problem with the traditional peer review model of publication, when applied to the subject-content area of rapidly emerging and changing technologies.

A third article was submitted to a journal but withdrawn when one reviewer (who exhibited strong signs of being unfamiliar with virtual worlds and technology in education) requested changes that would have made the article nonsensical.

While peer-reviewed publications are the 'quality' approved method of adding to the sum of human knowledge, it is difficult to justify the amount of time spent on writing, editing and dealing with byzantine publishing systems for what is suspected to be a very low number of readers, especially compared to other media.

3.4.6 Mailing lists

People often forget email as a dissemination tool, as it does not have the glitter of twitter and other social media. However, email and mailing lists have proved to be the quickest way to get information 'out there', as evidenced in associated spikes in traffic on the VWW website.

The Virtual Worlds[28] JISCMail mailing list is a particularly effective method of dissemination to the UK academic virtual world community. The membership of the lists consists mainly of UK academic developers, academics interested in virtual world use, and funding body personnel. Several list members are known to forward on relevant postings to this list within their own institution, adding another layer of dissemination. There is also a low amount of traffic on this list, making it easy to follow.

The Educators[29] Second Life mailing list is the other one on which announcements result in a quick spike of traffic on the VWW website. This is a more global mailing list, with a larger amount of traffic, and for busy people is best set to daily digest mode. Traffic to the VWW website is noticeably more from the US than from ll other countries combined shortly after an announcement on this mailing list.

3.4.7 In virtual worlds themselves

In the summer of 2009, VWW did go someway down the road of investigating and purchasing an island in Second Life. However, the cost and time factors started to look unhealthy compared to other forms of dissemination media.

VWW may come back to this at a future time, or may negotiate 'squatting' on somewhere such as the Eduserv Second Life island (if still available).

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[27] Article abstract: http://www.informaworld.com/smpp/content~content=a922239531

[28] JISCMail mailing list: https://www.jiscmail.ac.uk/cgi-bin/webadmin?A0=VIRTUALWORLDS

[29] Second Life Educators mailing list: https://lists.secondlife.com/cgi-bin/mailman/listinfo/educators

4. Acknowledgements

Two thanks at the start of this section. First, to Sheila Webber, who provided the picture on the front cover. This was taken at the presentation by VWW on her island in Second Life, in April 2010; it's available[30] on Flickr. Second, to Mark Childs. Some of the thoughts in section one of this report, on the negative attitudes that some people have to Second Life, were assisted by conversations with him at events, and local hostelries in the West Midlands.

The support of Eduserv Foundation, then Eduserv Research, is gratefully acknowledged. The (real) world was a very different place three years ago, when Eduserv started funding individual snapshot reports, followed by a more holistic service. Without their funding, patience and flexibility (especially with deadlines), advice, direction, honesty and above all, good humour, VWW would not have the foundations and momentum it has now. Thanks, Andy Powell, Pete Johnston and Ed Barker.

It's been said in nearly every report, but needs to be highlighted. Virtual World Watch is only possible through information supplied by UK academics. Many, running into several hundred, have supplied snapshot responses - sometimes of great length - plus comments, ephemera, and pointers to other information sources. Most of this has been done in the spare time of these academics.

Without this input, Virtual World Watch would not have happened. The first snapshot report, which relied solely on hunting and finding examples in Second Life, is anaemic in nature; it gives no context or clear idea why academics did what they did in virtual worlds. As more academics provided responses, so the reasons, problems (and problems solved), achievements, ideals and other aspects of the virtual world efforts of UK academics have become clearer.

To them, and the team at Eduserv, VWW is grateful. I hope VWW has been of positive use over the last three years, and continues to be so, in whatever form it takes, in the future.

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[30] Picture of Virtual World Watch talk on InfoLit Island: http://is.gd/crCxZ