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Title:

Solo life to Second Life: The design of physical and virtual learning spaces inspired by the drama classroom

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Solo life to Second Life: The design of physical and virtual learning spaces inspired by the drama classroom

This paper explores the design of virtual and physical learning spaces developed for students of drama and theatre studies. What can we learn from the traditional drama workshop that will inform the design of drama and theatre spaces created in technology-mediated learning environments? The authors examine four examples of spaces created for online, distance and oncampus students, and discuss the relationship between the choice of technology, the learning and teaching methods, and the outcomes for student engagement. Combining insights from two previous action research projects, the discussion focuses on the physical space used for contemporary drama workshops, supplemented by Web 2.0 technologies; a modular online theatre studies course; the blogging space of students creating a group devised play; and the open and immersive world of Second Life, where students explore 3D simulations of historical theatre sites. The authors argue that the drama workshop can be used as inspiration for the design of successful online classrooms. This is achieved by focusing on students' contribution to the learning as individuals and group members, the aesthetics and mise-en-scene of the learning space, and the role of mobile and networked technologies. Students in this environment increase their capacity to become co-creators of knowledge and to achieve creative outcomes. The drama workshop space in its physical and virtual forms is seen as a model for classrooms in other disciplines, where dynamic, creative and collaborative spaces are required.

Introduction

Imagine the drama classroom. In most educational institutions this is the room most likely to have no desks, a bare floor, and a storeroom in the corner for resources, often overflowing with props and costumes sourced from second-hand shops. This is a space that lends itself to transformation by participants and the teacher. It is space that, at times, stands still and empty, and at others comes alive with ideas, enthusiasm and boundless energy. Despite the often skeletal nature of the traditional (physical) drama workshop space, most drama teaching environments have their own aesthetic appeal. Many students enjoy entering and inhabiting this space. This may be because it is an open space to play, share ideas, communicate and collaborate. Or perhaps students enjoy the challenge of a space where they can take risks, and tentatively throw an idea into the air and watch it grow and develop, as it takes on a life of its own and builds into a scene or performance. In a holistic sense, the drama classroom is a space that invites and demands collaboration, an inclusive place where individuality is rewarded, and the strengths and weaknesses of participants acknowledged. It is a space of enormous frustration and challenge, just as it is a place of discovery, creativity and self-awareness.

What is it, then, that we can learn from this seemingly "empty" space, which allows for such rich learning and creativity? What can we take from the design of the traditional drama workshop space that will inform the design of drama and theatre spaces created in technology-mediated, online and virtual learning environments?

Using these questions as the basis for discussion in this paper, we reflect on our experience designing drama and theatre studies courses. Combining insights from previous research, we investigate the relationship between the choice of technology, the pedagogical and aesthetic considerations, and the impact on student engagement. Four inter-related examples are reviewed. These examples demonstrate how learning spaces evolve over time, and how the experience for distance and online students has changed from a typically solo experience, to one where it is possible for students to inhabit a virtual, immersive world, learning with others in a "second life". In these new learning contexts, students increasingly

belong to a variety of technology-mediated groups, ensembles and communities. Students can be observed coming and going from these transient collaborative spaces, adopting a variety of roles and identities as they create their own learning pathways.

The four examples on which we draw for this paper are:

- 1. a drama workshop space in its new technology-enabled format;
- 2. a fully online, distance education theatre studies course created in WebCT, where the actors and the stage designer take students on an elearning journey through five theatrical time periods;
- 3. a Web 2.0¹ group blogging space used for the creation of original student plays; and
- 4. a virtual field trip with distance students into the immersive world of Second Life.

In terms of methodology, our research and teaching is informed by a socialconstructivist perspective, acknowledging the personal and socially constructed nature of learning, and 'the importance of knowledge having individual meaning' (Anderson and Dron 2011, 3). For the purposes of this paper, we have combined the findings of two action research projects (examples 2 and 3) with participant observation of two other classroom spaces (examples 1 and 4). The action research projects utilised the Kember and Kelly (1993) model of action research (reflect, plan, act, observe), and employed a mixed methods approach for data gathering and analysis, combining 'methods, a philosophy and a research design orientation' (Creswell and Plano Clark 2011, 7). Qualitative and quantitative data from online surveys, focus groups, online discussions and critique of the learning design itself were combined in the research to analyse and build theory about the case studies. This provided a rich picture of the engagement of second-year university students in the online theatre studies course (example 2), and the creative group work of third year, on-campus students in the playbuilding course (example 3). Full details of the methodologies and the case studies can be found in Philip and Nicholls (2007, 2009). For examples (1) and (2), the authors used Schon's (1991) approach to learning in a changing society, and maintained a continuous process of reflection, i.e. 'reflection-in-action' and 'reflection-on-action'. This allowed us to evaluate our observations as participants and teachers in the evolving drama classroom.

Figure 1: The empty drama classroom

Example 1: The drama workshop space

As all drama teachers know, the drama workshop space is an ideal environment for supporting student creativity, learning and engagement. Before the advent of digital technologies, students arrived bringing only their presence, their voice, their identity and their creativity. The traditional division of "teacher space" and "student space" was generally non-existent. There was no lectern out the front: the space did not declare itself to be a teacher-centred one. The space was about what the students and teacher brought to it, and what was created and constructed in that space. The usual hierarchies of the traditional model of classroom teaching in higher education were absent. It was, and is, adaptable and flexible.

Compare this open and democratic space with recommendations made by the UK body, JISC², for technology rich learning spaces in the modern university. These spaces should be:

'Flexible – to accommodate both current and evolving pedagogies; future-proofed – to enable space to be re-allocated and reconfigured; bold – to look beyond tried and tested technologies and pedagogies; creative – to energise and inspire learners and tutors; supportive – to develop the potential of all learners; enterprising – to make each space capable of supporting different purposes'. (JISC 2006, 3)

JISC also recommends that the space support personalised, inclusive and active learning, and that it be motivational and supportive of 'collaborative as well as formal

practice' (3). These recommendations are echoed in research conducted into learning spaces in Australia, for example the *Spaces for Knowledge Generation* project (Souter et al 2011). Generally, the drama classroom meets these recommended criteria, as the space is adaptable to varied pedagogical approaches and purposes, versatile enough to accommodate student-led or teacher-led activities, and flexible enough to ensure inclusivity and adapt to the changing demands of technology over time.

As an example of how students now inhabit the drama space, let us consider a group of third year drama students asked to devise, script, design and perform an original play (example 1). The course runs over a thirteen-week semester, with three hours of workshop time per week. Students regularly bring their mobile phones to the classroom to share photographs and videos of performance spaces, props and costumes recorded during the week. They sit on the floor with peers, collaborating with their wireless laptops, playing YouTube video clips, viewing performances by professional theatre companies which provide inspiration for their own developing projects. Rehearsal is captured during and after class on students' own video cameras and mobile phones. This data is then easily posted to a blog or a Facebook page, or brought back to the classroom for sharing, discussion, argument and critique. The traditional "empty" drama workshop space has now been transformed into a media-rich, digitally-networked, blended learning environment. Students are 'mutually involved in assembling and disassembling cultural products' (McWilliam 2005, 11). Clearly, the university is no longer the only information provider and source of expertise as the boundaries between the university, the student and the teacher are blurred. Teachers and students together are creators of new knowledge, creative processes and creative outcomes.

Figure 2: The networked drama classroom

Example 2: Taking theatre online

To be engaging, the online space needs to be both aesthetically and pedagogically well integrated. As the research of Oliver and Nikoletatos (2009, 721) into student engagement confirms, 'an engaging curriculum, of itself, [is] insufficient to facilitate a quantum leap in student engagement: the intended curriculum also requires physical and virtual spaces optimised for student engagement.' Michael Anderson (2005, 119) suggests that we should see these new spaces where emerging technologies proliferate 'as yet another stage on which the drama aesthetic can be played'.

So in order to optimise student engagement, how can we combine the aesthetics of the online space with the necessary pedagogical requirements? A second-year Genres of European Theatre unit provides a useful example of how the online space might look, feel and sound. Development of the online course (a semester-long unit) began in 2000. Using WebCT, the learning management system (LMS) provided by the university, our aim was to consider *all* aspects of the learning and teaching environment, in much the same way as a theatre director considers his or her choices in play production. This included consideration of the *mise-enscene* within the confines of the technical platform.

In theatre, the *mise-en-scène* refers to those elements, sets, props, costumes, lighting, and actors that comprise the "scene," the space in which the dramatic action takes place. The design of the *mise-en-scène* is crucial for a successful production. Similarly, the *mise-en-scène* for an online course comprises everything available to students each time they log in, including resources, tasks, assessments, and the presence of and interactions with other players. How well these elements are designed and integrated affects the learning space and . . . the course dynamic. (Philip and Nicholls 2007, 266)

By "course dynamic", we mean 'the atmosphere and energy that is fostered through the interplay of students, teachers and other mentors within the learning space' (Philip and Nicholls 2007, 261–2). The environment is designed so that the teacher's presence is

perceptible-not only in the online discussions, the emails, and the chat rooms, but in the selection and design of resources. This holistic approach helps to ensure that students are more consistently 'present' in the learning environment. And the combination of 'teaching presence', 'social' and 'cognitive presence' constitutes what Garrison, Anderson and Archer (2010) call a 'community of inquiry'. All three elements need to work together to build community, so that students are not working alone, even though much of the time they may be a solo "player" in the online learning space.

While in theatre and film it is commonplace to consider the *mise-en-scene*, in the context of LMS course design, our observation is that it is seldom attended to. The technical constraints of web-based learning within learning management systems, until recently, severely limited what could be done in the online space. As Gibbs and Gosper (2006, 47) observe:

'[learning management systems] when used creatively, are able to provide students with quite varied learning experiences. . . But more often than not, teaching within these systems can be like attempting to teach in a straitjacket.'

Most learning management systems have much to offer in terms of content management and tracking of student records. However, working creatively with the communication tools, and realising a lively interpersonal "dynamic" in these systems is challenging. Nonetheless, by thinking about how students work in the physical drama space and then how they might *interact* online, we begin to focus on elements such as engagement and aesthetics, rather than merely filling the space with "props". If the focus is to be on building a community of inquiry online, then the emphasis must fall on human interactions, not just the resources. As you would in a drama workshop, the teacher/director needs to take note of everyone's entrances and exits, the general dynamic, whether the "players" are working independently or collaboratively, and whether solo or ensemble interactions are best for various tasks.

Furthermore, because drama and theatre are such visual media, it was essential in the online theatre course that students had access to more than just verbal texts. Images, video and audio were important for the *mise-en-scene*, and a media-rich learning environment. As well as the standard print materials, and articles from the library e-reserve collection, a bank of images was added to the online space, providing examples of costumes, set designs and artefacts for each genre. Significantly, original digital video footage was created of theatrical examples of play texts, from five historical periods. These videos used chroma key technology, (compositing or layering of acted scenes over a separately recorded background). They showed the same two actors performing different scenes, in different genres. (See Figure 3.) This highlighted the differences in performance spaces, sets, costumes and styles of acting. Accompanying this were interviews with the actors and the designer. The visual resources were invaluable for drama students studying in distance mode, as prior to that time, students only had access to the study guide and print-based readings with some illustrations. The video-sharing platform, YouTube, did not exist.

Along with access to the visual resources, students had the opportunity to engage with others via multiple interactions. Students contributed to weekly asynchronous discussions, and optional synchronous chat sessions with the co-ordinator, peers and guest artists. Assignments offered a choice of project tasks, and flexible completion dates. One optional task linked local students in an asynchronous, online discussion with students from Parkersburg West Virginia University in the USA, on the topic of the relevance of Aristophanes's *Lysistrata* to contemporary audiences. Another option gave students the opportunity to discuss, a local production of *King Lear* with the director, via real time chat.

Figure 3: Actors James Lugton and Catherine Martin in the chroma-key studio

Comparison of the experience of these second-year students with that of distance students from the past, indicates the degree to which learning spaces have evolved. Up until

the early to mid-1990s, distance education was predominantly a solo endeavour, with a focus on print materials. Separation of student and teacher was a key feature (Moore 1973). A common Australian model typically saw the learner working at home on their own, with limited tutor or peer interaction, except when students were required to attend a residential, or on-campus session at the university. This contrasted with the on-campus model based on lectures and tutorials, which relied more on oral communication, with supplemental use of print materials and other media. The "classroom" for distance students was highly distributed in the geographic sense, but confined in terms of student interactions. Distance students lacked a classroom, but were, at the same time, part of a huge family of learners who seldom, if ever, spoke to each other. This standardised, 'industrial model' of learning (Peters 2007) was somewhat depersonalised, and lacked the immediacy that new communications technologies potentially now provide.

In summary, the traditional drama workshop provided inspiration for the aesthetics and the pedagogical design of the new online environment illustrated by example 2. The space was conceived as more than a set of modularised resources, supported by minimal teacher input. Like the traditional drama workshop, the online space encouraged active rather than passive student engagement, the focus was on the learner and the community to which he or she belonged, learning was personal and developed through dialogue, and the use of real life tasks, 'authentic tasks' (Herrington and Herrington 2006), was key. In other words, a social constructivist perspective framed the design.

Example 3: Group blogging – reflection, creation and process

The proliferation of mobile and wireless technologies allows students to readily integrate informal learning spaces outside the university with the formal classroom inside the university. Information and communication tools and networked technologies are no longer an 'exotic' element of the learning experience (Milne 2006). As Oblinger (2006) reminds us, the changing nature of learning in higher education is affected by changes in students themselves, changes to information technology, and changes to the way we approach and understand learning. More adaptive spaces are required, that, as Loi and Dillon (2006, 364) suggest, accommodate 'changing relationships between people and resources'. These spaces should allow students to be creative and construct their own learning with the aid of digital technologies. This call for more personalised learning spaces is supported by the research of McLoughlin and Lee (2010), and the Australian study, *Spaces for Knowledge Generation (SKG)*, referred to previously. The SKG report concludes that: 'A space which announces and invites customisability . . . is a live and welcoming space' providing 'a metaphor for the experience of "building" and "shaping" knowledge, as the space itself is built and shaped.' (Souter et al 2011, 3)

Within this new higher education context, the physical drama workshop space described in example 1 became a blended learning environment for students in a third-year playbuilding (group devised theatre) course. As well as attendance at face to face workshops, students were required to contribute to a group blog. The rationale for using the blogs was based on a need to improve the reflection process that typically accompanies the creative playbuilding and performance task. Past experience and assessment of students' print-based reflective journals or log books, indicated that students' work was, at times, descriptive rather than analytical and evaluative, and often contained portions of unsynthesised, stream of consciousness writing. This was less than inspiring for the teacher to mark, and of limited value to students. By adapting Dacre and Mackey's (1999) model for reflection to better structure students' writing, and by changing the medium for reflection from print to the Web, improved student outcomes resulted (Philip and Nicholls 2009). Findings from previous research indicated that this model encouraged higher order thinking, and students' 'critique of the group and its context, self interpretation, and artistic and theoretical reflection' (Philip and Nicholls 2009). The need for pedagogical change in the course led to a technological change, and a change of place and space for student learning and reflection.

The centrality of reflection in arts education is emphasised by Hilton (2006, 33):

'Art *requires* reflective discussion to create and shape meaning. Interrogating the experiential base of an individual or group artistic creation, discussing as equal partners in a creative enterprise the ideas and systems of meaning that have been used or transformed, thinking together about the ways that creativity works to enrich experience [and] relationships . . . are the deepest and surely the most transformative aspects of reflection.'

Hilton recognises the importance of reflection for both the individual and the group. This 'reflective conversation', which forms part of a 'questioning discourse energised by shared experience' (33), contributes to the dynamic of the learning experience.

For the playbuilding task, students were divided into three self-selected groups. Over the semester, each group developed a topic, a performance style and chose a venue for their final performance. In the second class of the semester, students attended a one-hour tutorial on use of the WordPress blogging software, chose a template for their blog, and established authoring and editing rights. Viewing rights to the blogs were limited so that only class members and their teacher could see, contribute or comment on the blogs. For assessment, students were required to make weekly contributions to the blog which documented the playbuilding process. Consequently, they were encouraged to share resources, comment and critique their own and others' work. They added images of costumes, artefacts, audio files, YouTube clips, their own rehearsal videos, and website links to scholarly articles and other references to the blogs. Several students contributed their final reflection on the group blog as an individual video log (vlog). The technology was used in such a way that it enabled students to reflect visibly on the process. (See Figure 4.)

Figure 4: Students rehearsal photos and discussion on lighting

The blogs gave students a personalised voice for each group. That voice varied from (a) a scholarly style in referring to relevant theoretical academic thinking, to (b) a journalistic style as students prefaced their discussions or described the artefacts uploaded, to (c) spontaneous words of encouragement and delight at progress made. Added to this were (d) reminders from one student to another about work yet to be completed. Observation of the learning that took place online in the group blogging space indicated that it was equal to learning observed in class, and at times even more productive online than in the face to face classroom. (See Figure 5.)

Figure 5: Sample blog entry

By comparison with the fully online course, this space was very much owned by the students. So while the course in WebCT had a definite dynamic, filled with energetic discussions and a community of inquiry, it was driven by a modular structure. The nature of Web 2.0 social networking technologies like blogs, gives students much more control over the learning. While the second-year online students had autonomy in terms of pacing of the unit and choice of assessment, by comparison with the third year course, they did not have the freedom of the group projects. The playbuilding students had to accept responsibility for management of their groups, the processes and the final performance. This greater autonomy reflected what you would expect from a capstone course, compared with a second year course. However, this is not to say that the same group blogging exercise could not be run with second or first year students, or adapted for students in the K-12 sector. What changes at the different educational levels are the expectations, guidance and supports needed to achieve

the learning outcomes, matched to the readiness of students to adapt to the learning environment. Reflecting on the changes in the technology and the agency the blogging space gave students, it is important to note that the content for the course was generated by the third-year students themselves. While the teacher established the learning context, and provided the theoretical underpinnings, students created their own structure, set their own tasks and solved problems as necessary along the way. The teacher's presence was important, but the responsibility for learning was firmly in the hands of students, who selected the elements they needed for their dramatic performance, brought those elements into the learning environment, justified and reflected on the combination of resources and the creative direction taken, and used appropriate tools of their own choice to reach the final course outcomes, i.e. a creative performance.

The aesthetics of the blogging space built up over the semester, and developed an inviting and media-rich forum for ideas. The WordPress blogging software was easy to use and offered a more appealing interface than was possible in the learning management system. This difference was in part attributable to the difference in the affordances of the technology, and the needs of the learning design for each course. But, as Anderson (2005, 124) observes, 'the quality of the aesthetic experience relies most heavily on the creative skills of the dramatist (in this case teachers and students) rather than the choice of medium'.

The fluidity apparent in the blogging space and the unpredictability of the blogs meant that the output from each group varied according to the direction that students chose. The blogs reflected a more 'messy' pattern of student engagement, compared with the regular modular structure of the online theatre course. As one student said in her evaluation of the whole course in her final essay:

'[the] playbuilding process challenges most learning structures favouring a more linear and well-organized structure . . . However, retrospectively this 'chaotic' process stimulated intellectual inquiry, teamwork, accountability and responsibility for creation and production far greater than any other course I have undertaken.' (Student essay)

Example 4: A Second Life virtual field trip

Second Life (SL) (http://secondlife.com/) is an online virtual world also referred to as a multiuser virtual environment (MUVE). Players (or residents) explore this world by creating an online persona known as an avatar. Residents can, e.g., buy land, design buildings, attend art exhibitions and conferences, and socialise in a simulated real world environment. Second Life became public in 2003, and now has over 63,000 active participants each day (http://gridsurvey.com/). More recently educational institutions have seen the opportunity for building 'inworld' educational experiences where students can meet, collaborate, learn and create in real time. At the time of writing, more than 750 educational institutions were using Second Life (Cummings 2010, in Masters and Gregory 2010).

These immersive environments are becoming more accessible to students, and the virtual world 'gives the user a strong sense of being there', within a shared space (Warburton 2009, 415). As Warburton (2009, 419) observes:

'the abilities of both student and teacher to project themselves into the learning space . . . suggest that the immersive nature of the virtual world, crossing physical, social and cultural dimensions, can provide a compelling educational experience, particularly in relation to simulation and role-playing activities.'

We became interested in *Second Life* because in a later offering of the Genres of European Theatre course (in 2009) we wanted to give students the opportunity to go beyond the basic course, and visit re-creations of theatre spaces and events that had been created in this virtual world. Not all students were able to take up this option, for technical or time-

based reasons. However, for students studying by distance, here was an opportunity for students to meet online in real time, 'inworld' with the teacher and other mentors, and experience a virtual field trip to various sites ('sims' or islands) relevant to their studies.

As part of the design process, the authors (one of whom was the course coordinator) spent time in *Second Life* experimenting and planning the 'excursion', and mapping out the route. This type of preparation is critical, as students must be prepared for the higher than usual technical demands and, as Baker, Wentz and Woods (2009) recommend, prepared for the 'social experience' (63). One anecdotal comment from a participant confirmed the benefits of good preparation:

'The instructions and preparation were great. A whole box of goodies delivered to us before hand was meticulously organised. The instructions when we were inworld were . . . well paced and easy to follow, and someone was always looking out for us to make sure we weren't lagging behind or lost'.

The invitation to students to participate in the virtual field trip provided information on the time and date of the tour, instructions on how to download *Second Life*, create a basic avatar, and teleport to the meeting place at the university's space on Jokaydia Island, 'inworld'. After students created an account and avatar, they emailed the details to the coordinator, who then placed further instructions in the avatar's own 'inventory' box.

Four students took up the challenge and met with two academic staff and two support staff in *Second Life*. Students were supported technically, and practised learning how to move, fly and teleport³ before setting off on the excursion. The first site visited was an educational resource built for Shakespeare's *Macbeth*. The island, called 'Foul Whisperings, Strange Matters', was created by Dr Angela Thomas, Kate Richards and Kerreen Ely Harper. It was funded by the Literature Board of The Australian Council for the Arts and investor partner, the New Media Consortium.

On arrival at the island avatars were immediately immersed in the world of Macbeth. A barren ghostly landscape, haunting shadows and an eerie spoken soundscape surrounded participants, and they were free to wander around, clicking on various artefacts that revealed insights and challenges about the play, its characters and themes. Some artefacts provided a teleport to different levels and sections on the island which meant descending into underground passageways, scouring around the Witches' islet, or riding on the back of a mysterious raven. Further information on the detailed design and concept of the island can be found in Richards (2010), and at the virtual Macbeth wiki

(http://virtualmacbeth.wikispaces.com/Teaching+Resources).

The next stop was The Theatron 3 Project created by the Kings Visualisation Lab (2009), King's College London. This sim provided access to a number of digital 3D models of European theatre designs. Avatars selected a design, and once the design rendered (appeared), they were able to fly down into the theatre space for a visit. As a group, the participants explored the Ancient Theatre of Epidaurus (see Figure 6), and Shakespeare's Globe Theatre.

Figure 6: Visit to Theatre of Epidaurus during virtual field trip (*Second Life*, Linden Research, Inc., San Francisco, CA, USA)

This immersive experience provided a further level of engagement and interaction for students that was not technically possible at the time the original online Genres of European History course was first conceived. In *Second Life*, students were free to walk or fly around these theatres investigating performance platforms, entrances and exits for both audience and actors, and audience spaces. In the Globe Theatre, students could experience standing in the pits or sitting in the galleries. Throughout the experience there was continual dialogue amongst participants, mentors and the coordinator.

By comparison, in the WebCT learning management system space, while students could watch videos of the simulated historical theatre sites online, and listen to the actors and designer talk about the challenges of acting and designing for these spaces, this could only be

experienced in 2D. Exploring these virtual stages in 3D, however, meant that students experienced the excitement of discovery with others, in an "authentic", or simulated real life space. The space provided opportunities for play and experiential learning i.e. for experiencing a phenomenon, observing and reflecting on that experience, then abstracting and making generalisations, and applying or testing that knowledge in new situations (Kolb 1984). As O'Toole (2009, 6) observes, there are fundamental connections between play, art and learning.

'Both play and art are serious business – the business of the human imagination, defining reality through new possible realities, models of human experience, new angles and perspectives, creating order out of chaos.'

Savin-Baden characterises this sort of learning in *Second Life* as 'liquid'. The openended nature of the space means that learning is not necessarily driven towards a 'given trajectory' (158). In example 4, the exploratory virtual field trip contrasted with the more modular approach taken for the rest of the course (example 2). This contrast can be seen as complementary, rather than oppositional, as it is not necessary to see either experience as better or more limited than the other–only different. Whatever the structure of either experience, there was a desire to create and support a community of inquiry in both spaces, however differently that might be expressed in practice.

In addition, the fluid and unstructured environment of *Second Life*, like the traditional drama workshop space, provides an environment for 'serious play', which supports the development of 'high order thinking, commitment and engagement' (Rieber, Smith and Noah 1998, in Savin-Baden, 2008, 158), and creativity. These complex environments offer students learning that replicates real world learning, often outside the walls of the traditional university. As Savin-Baden (2008, 158-9) concludes:

'It is in such spaces that we can explore the possibilities for creating curricula for living with chronic uncertainty, liminality and spaces of unknowability. Curricula then will become a series of open-ended spaces rather than a series of permissions to proceed that focus on compliance and rule-based models. Such open-ended curricula will be provisional, unstable and uncertain, and will reflect the translocational state of the university of the future.'

Conclusion

In considering the drama classroom in its physical and virtual forms, we have discussed the elements that promote successful learning spaces. In drama these elements include: attention to the aesthetics of the learning space; providing room to play and places for creativity to grow; active and inclusive student engagement and collaboration; scaffolded student learning experiences; student participation in authentic learning tasks and a "community of inquiry and creativity". We have considered the relationship and interplay between the pedagogy and the aesthetics of the learning and teaching space, the impact of networked information and communication tools and 'inworld' activities, and the effect on student engagement. In addition we have observed the changing locus of control, as it shifts from the university and its teachers as providers of knowledge and learning experiences, to a much more studentcentred model, where students generate creative artefacts and new knowledge, aided by mobile and networked information and communication tools. To illustrate this we have referred to four examples which demonstrate how the technology has made it possible for students to move from a solo "performance", in the case of distance students, to the ensemble and exploratory experiences possible for distance and on-campus students in Web 2.0 collaborative spaces, and in the fully immersive world of Second Life.

While the examples referred to are taken from the drama and theatre studies classroom, the lessons learnt have application for other disciplines. By designing spaces that aim to capture the imagination and promote creative and critical thinking, independence, and experiential collaborative learning, it is possible to heighten student engagement. The days of small, intimate, interactive tutorials in the tutor's office have long gone, and many of the choices we make as educators must be pragmatic, given the growing size of university classrooms. However, if we are interested in creating inclusive learning spaces where students can "leave a footprint", engage with a community and have a sense of belonging, and take risks within a safe and supportive environment, then the drama classroom has much to offer students and teachers from a wide range of disciplines.

Notes

- 1. Web 2.0 technologies support social networking, collaboration and user-generated content. They are usually distinguished from technologies associated with earlier applications built for the Internet, based on a model of user consumption of information, rather than production of knowledge and artefacts.
- 2. JISC is the key organization in the UK which advises on information and digital technologies for education and research.)
- 3. Teleporting is the primary means of travelling between sims (simulations) in Second Life.

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