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SIMITA At The University of the West of England

DEVELOPING EXCELLENCE IN PROFESSIONAL SKILLS THROUGH SIMULATION

The University of the West of England, one of the largest universities in the UK, has embarked on a wide-ranging initiative: Simulations in Higher Education – (SHE), to embed the development of professional skills across all areas of study offered by the institution. One of the first projects under this initiative is SIMITA (SIMulations In Transactional Activities). SIMITA uses social collaborative online software to replicate a professional office environment online where students assume different roles, e.g. a partner in a firm of solicitors, and work in teams to resolve a case presented to them by their tutors, who also role-play as clients and consultants.

SIMITA provides a seamless experience via Blackboard. Students have access to an interactive virtual town map that contains information needed to progress the case. In addition they have their own 'virtual office' private to the members of their firm. Blackboard Collaborate is available in each virtual office and allows members of one firm to contact their opposing firm via a voice message. This adds realism to the simulation as a 'virtual telephone' equivalent. Members of a firm can discuss their work via text and/or voice. They can assign tasks to each other, decide on their strategy as a team, etc. Tutors monitor the work and progress of all firms and intervene if necessary.

The project started in May 2008 with a scoping and matching phase to define system functionality and to match existing technologies to those requirements. The emphasis of the matching process was on utilising, as far as possible, mature technologies that were already in place at the University, to minimise development costs and ensure a high level of stability and reliability. Blackboard Learn, Microsoft

SIMITA
SIMulations in Transactional Activities

UWE BRISTOL
University of the West of England

STUDENT FEEDBACK INCLUDED:

'It has been very useful to be able to access SIMITA remotely and work when I need to rather than rely upon being given documents.'

'If you take responsibility for the work and immerse in the process it is undoubtedly of great benefit.'

'You get to learn many things, which cannot be learnt through other modules.'
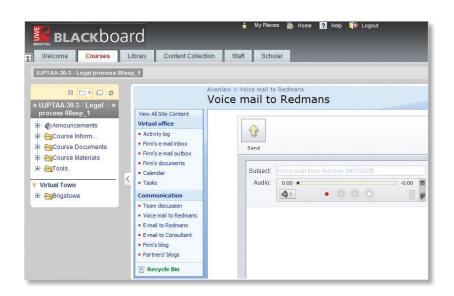
'Ideal module for those who want to go on and practice.'

Office Sharepoint Server and Blackboard Collaborate were identified as the systems that could provide the functionality required. The University had already integrated Blackboard Collaborate with Blackboard Learn via the building block. They then built the Sharepoint sites separately, embedded them in the virtual learning environment, and created a workflow in Blackboard to give students access to the virtual office that they would belong to. Finally, Blackboard Collaborate was added to the different virtual offices as web parts.

'Integration was remarkably unproblematic as all main three technologies happily run alongside each other. All three are built following an object-oriented architecture and this facilitated combining them. The main challenge with integration was to have a clear and detailed plan of how all elements would be connected and presented to the user as a single seamless experience, while keeping the platform flexible enough to adjust it as we further developed and piloted it.'

Manuel Frutos Perez, responsible for project management of SIMITA, outlines the progress of the project:

'In the summer of 2008, we built the initial proof of concept system and developed the content for the first pilot. We ran the first pilot with a cohort of third year undergraduates from the Bristol Law School from November 2008 until February 2009. Students were divided into groups; each group became a firm of solicitors with a virtual office. The firms were then paired and each pair had a 'civil case' to progress. Teaching staff role-played the clients. Students had to develop the case as solicitors would in real life, and to reach a negotiated settlement. The pilot had a 'low stakes' status: students weren't assessed, as we first wanted to see if the system could support the learning process adequately.'

'The pilot went very well. The students engaged really well and participation was very high, a significant indicator considering that this was not assessed. The second pilot ran with the same cohort of students from February 2009 until May 2009. This time the pilot had an assessed activity: a 'criminal case'. Students were divided into paired teams of solicitors and prosecutors. Students had to progress the case up to the point to going to court. Again, the pilot went very well, with high participation from students. Feedback from tutors was clear - this was a very valuable learning experience for students, which also helped them gain practical experience and develop transferable skills for their future careers.'

'Blackboard Collaborate gives the platform an edge of realism and rich media. It enhances the internal communication between the teams and allows tutors to review the voice exchanges. Without Blackboard Collaborate we either would have had to rescind user-generated sound, which would have been in detriment of the realism of the experience, or would have had to add considerable extra resource to the project to develop a voice recording solution to it,' Manuel said.

'SIMITA achieves a simulation environment that integrates with the students' online learning experience, that looks and feels realistic, that is flexible and stable, that fosters interactive exchanges and encourages students to apply their knowledge, take responsibility for their learning and reflect on what they are doing.

'At a technological level I don't think we are doing anything that is ground-breaking, but we are using technology in a very tight, fit-for-purpose way. The innovation comes in the teaching and learning approach. The simulations are truly open-ended. The approach is not outcomes-based, but process-driven; the important bit is the 'doing' not the 'product'. The innovation is in the combination of existing systems to create a new learning platform. This hugely reduces costs as all the technology and support for it was already in place. It is also innovative because it devolves ownership of the online learning environment to students and they manage their own virtual offices,' said Manuel.

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>
> Manuel Frutos-Perez
> *Leader,*
> *E-Learning Development Unit,*
> *University of the West*
> *of England, Bristol*

Feedback from users has been very positive. There were more than 10,000 hits for the two pilots, a sizeable figure considering the relatively small size of the user group. Students engaged well, were motivated, and put considerable effort in developing their cases. The total number of technical support e-mails was seven, a very small number considering the level of activity. This is great news for the project as it shows that users found the platform very easy to use and requires low-levels of user technical support to run simulations.

In 2009/10 the University is running two additional pilots in the Bristol Law School, and plans to run further simulations in professional development courses at the Bristol Law School, in management courses at the Bristol Business School and in engineering management courses at the Faculty of Environment and Technology. The University will also build a portfolio of pedagogic practice by subject area so that they can adequately support colleagues across the University to develop simulation activities on-demand and embed them in the curriculum.

User feedback has been very positive both from academic staff and students. Staff felt that the system allowed them to manage the simulations effectively at a distance and could easily monitor the activities of students and participate in the development of the cases when necessary. Students were surveyed on their experiences using SIMITA.

- 94% of students thought that the system as a whole was useful or very useful.
- 88% thought that the system was easy or very easy to use.
- 94% thought that working on the cases had been a valuable or very valuable learning experience.
- 88% thought that using SIMITA had been a valuable or very valuable experience to develop skills that they would need in the workplace.
- 94% stated that they would recommend a friend to enrol in the same course.
- 88% stated that they would like to use SIMITA in future postgraduate or professional training courses.

Developing the SHE initiative

The University plans to develop the SHE initiative and embed the development of professional skills across all areas of study offered by the institution. This is seen as a key differentiator for UWE as so much of their provision is vocational and professionally oriented. The University has several other projects under development within the SHE initiative:

- Accident Simulator in SecondLife: this has been used with students of Environmental Health studying risk, accident causation theory and investigation techniques. It is based on an accident that takes place in a warehouse. The following is an example of how this kind of simulation can be used:
  - Three volunteers witnessed the accident through their avatars,
  - The students went to the warehouse a week later and saw the aftermath of the accident, and interviewed the "witnesses", and gathered information from the set e.g. documents from filing cabinets.
  - They then took the information away and constructed a fault tree and reconstructed the accident.
  - They then took their reconstructions back to the SecondLife set and re-ran the accident so that they could reflect upon their findings.
- Care Home Simulator in SecondLife: this is being developed by Social Work colleagues and will involve a variety of students from different health related disciplines interacting with the "realities" of a care home and its residents.

The University is currently running an internal grant scheme to fund the development of further learning simulation activities across the curriculum. In the longer term the University hopes to become a centre of excellence in embedding advanced professional skills development in the curriculum facilitated by the use of the latest information and communication technologies, building simulated professional environments and constructing educational simulations of real life events and processes.

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