

# **Virtual Learning Spaces: Alternative Gateway to Higher Education Learning Opportunities**

## **TELEMATIC SERVICES**

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## **ALIGNED WITH THE STELLENBOSCH UNIVERSITY VISION**

A key aspect of the Stellenbosch University's vision is to make the University more accessible and academic achievement more attainable. To achieve this, the University has set in place alternative access routes, enhanced by user-friendly technology, especially aimed at those postgraduate students who currently need to overcome significant barriers to participate successfully in higher education. The purpose of the University's Division of Telematic Services (iTS) is to create a virtual learning environment that increases the virtual mobility of geographically dispersed students to widen their participation in the postgraduate academic programmes of Stellenbosch University. The enhancement of virtual mobility blurs the customary divide between face-to-face and off-campus educational opportunities, while the barriers often set by location and time are reduced. In this way the University is making an investment to ensure that all students are given the experience of a rich interactive and supportive study environment, irrespective of their locality.

Numerous postgraduate programmes and short courses at Stellenbosch already utilize this integrated platform with great success to create virtual learning spaces as part of a blended learning approach to support more than 2000 postgraduate students.

## **THE TELEMATIC SERVICES TECHNOLOGY PLATFORM**

The Telematic Services system is based on a combination of satellite, cell phone (SMS protocol), smart card and web-based technology and consists of an on-campus studio, nineteen remote learning centres situated all over South Africa and one centre in Namibia Together these create a virtual learning environment to support synchronous and asynchronous education opportunities for postgraduate students spread across a widely dispersed geographical area.

The Division has a state of the art broadcast studio with formal and informal sets that can accommodate up to five presenters. The modem television and chroma-key equipment make it possible to broadcast live interactive presentations complemented by computer applications. A mobile camera unit and editing equipment are also available to pre-record video-clips as additional learning resources that may be used during the broadcasts.

All the learning centres are well-equipped with satellite equipment for receiving video, audio and data signals, including a television monitor or data projector and sound system as well as cell phones and card readers, which are used for login and interaction with the presenter (e.g. making comments and responding to questions).

"THE WCED PROJECT IS ONE EXAMPLE OF HOW THE TELEMATIC PLATFORM IS ALSO UTILISED TO SUPPORT COMMUNITIES ..."

For a map of where the Stellenbosch University learning centres are located in South Africa and Namibia, see <http://academic.sun.ac.za/ite/map2html>. The Telematic Services system is unique

in that it allows direct two-way communication between the lecturer and students while a broadcast is in progress either via cell phone technology ("SMS-to-web" gateway service) or via a web-based interface. Real-time interaction between the lecturer and students, which is one of the distinctive attributes of the Telematic Services system, allows for the collaborative co-construction of knowledge rather than a passive one-way transfer of knowledge.

If students have missed a specific broadcast or want a recording for revision purposes, they can order DVD's of broadcasts via a web-form.

Lecturers are encouraged to use a blended approach incorporating a continuum of technology-enhanced learning opportunities that range from synchronous interaction (satellite-based technology, mobile and web-based messaging) to asynchronous interaction via the web-based discussion groups with face to face interaction. In this way lecturers can improve connectivity with students through broadcasts, while at the same time providing continued support and tracking via web-based interaction, e.g. online assessment, online tracking tools, pod casts, vodcasts, wikis and blogs.

This blend of activities can be complemented with other existing online services via the student portal to enrich postgraduate studies. These include online academic counselling and career guidance, programmes focused on the improvement of writing skills and access to library services, including access to the over 70 000 journals and almost 450 databases to which on-campus students have access.

## **SUCCESSSES ACHIEVED AND THE WCED PROJECT**

At the end of 2009, 1030 students, of which 75 were master's students, successfully completed postgraduate programmes that had been presented on the Telematic Services platform by the different faculties. The profile of this student group indicates that students from all communities, age and language groups can gain access to the academic programmes of SU and complete their studies successfully while pursuing a professional career.

The WCED project is one example of how the telematic platform is also utilised to support communities by providing virtual learning opportunities. Telematic Services is responsible for the creation of the virtual learning spaces by using the technology platform that includes satellite broadcasts to schools, real-time interaction via a web interface and mobile technology during broadcasts and interaction via a web-based discussion forum between broadcasts.