



# walking the walk

## Instructional Technology

**“Walking the Walk: The Design, Philosophy, and Significance of the Report of the Virginia Tech Task Force on Instructional Technology”** is the title of a paper by Gardner Campbell, Director of Professional Development and Innovative Initiatives in Learning Technologies. Erv Blythe, vice president for information technology and CIO and Daniel Wubah, vice president and dean for undergraduate education, charged the task force to develop a vision plan on the best use of instructional technology at Virginia Tech in the next decade and beyond. The report, “Invent the Future 2020,” explores the future of learning (<http://blogs.is.vt.edu/inventthefuture2020/>). Campbell notes:

The form of the report is an example of the higher education it celebrates and advocates: that of the networked university. The report is not merely on the web, it is of the Web, built on an open-source, collaboratively developed blogging platform called WordPress.”

By shaping the report on a blog foundation, the forum supports words, still and moving images, and sound, invites interaction through searches, keyword tagging, commenting, and the “trackbacks” generated by incom-

ing links. Keyword tagging permits a non-hierarchical view of the report, with readers able to “shuffle” the pages and excerpts based on commonalities of the keywords, and so experience the report richly.

As the task force worked to invent a high level view of the future of higher education, materials mounted, and mere text was unsatisfying. Multimedia examples bring the writing to life. The website itself brings sufficient unity to the report while encouraging readers to interact with the site and to explore areas of interest, while continuing to build the site with their own comments.

The task force included faculty and staff members and students from academic and administrative support areas. In addition to Professor Campbell, members and contributors from Information Technology included Anne Moore, task force co-chair and Associate Vice President for Learning Technologies. Others from Information Technology included professionals from Learning Technologies, experts on network architecture from Network Infrastructure and Services, and the co-chair of the subcommittee on organizational systems, Associate Vice President Debbie Fulton. ☺

Four Virginia universities—George Mason University, James Madison University, the University of Virginia, and Virginia Tech—constitute the 4-VA consortium. Donations from Cisco Systems of two Cisco TelePresence rooms to each university along with support from the General Assembly are advancing videoconferencing for instruction and distance learning. TelePresence improves videoconferencing’s two-way audio and video telecommunication experience by offering high definition video communication, using the best equipment available, and allowing for complete network control.

# TelePresence



While videoconferencing operates on television-style sets, TelePresence’s 55-inch plasma screens allow the “life size” view of the remote location to include important details like facial gestures and real-time eye contact. This immersive experience means participants at a distant site feel as if they were physically present in the room. Ludwig Gantner, the supervisor of the Video Network Operations Engineering group, which includes David Schuh and Kyle Kirk, part of Video/ Broadcast Services (VBS), noted that the design of each TelePresence room enables the participant’s field of view to be filled with the view of the remote location. High fidelity, stereophonic sound accompanies the high definition video.

Room 312 Burruss Hall was the first TelePresence room at the university, followed closely by 1100 Torgersen Hall for larger groups. The National Lambda Rail’s TelePresence Exchange links the Cisco TelePresence rooms among the four universi-

ties. Courses originating at one university can include students at other universities, participating simultaneously alongside their distant, fellow students.

VBS looked to further extend the reach of this technology through the TelePresence Interoperability Project. A limitation of Cisco TelePresence rooms is that they can connect only to other Cisco TelePresence rooms. The interoperability project succeeded in allowing connectivity between TelePresence rooms and traditional videoconferencing rooms—and Windows and Apple desktops and laptops, as well as iPads, cell-phones, and Android-based smartphones.

Connections between devices require an “address” or “phone number,” provided in this case by a video dial plan. In the case of the interoperability project, the underlying video dial plan allows interactivity between any properly configured, video

device regardless of protocol used or manufacturer, by dialing one number. The dial plan also includes connectivity to the research networks of National Lambda Rail and Internet2 and is designed to connect to Virginia Tech's upcoming Unified Communication solution (see page 4).

The new interoperability capabilities include connectivity to Virginia Tech's cable television and broadcasting infrastruc-

ture, allowing TelePresence meetings to be broadcast to campus and local television channels or to networks across the world through satellite uplinks.

Though the interoperability project was created for the 4-VA initiative, each component was designed to be scalable to allow for increased capacity depending on the university's instructional and business needs. ☞

◀ *Participants in the multiple-screen Cisco TelePresence room at 1100 Torgersen Hall interact with a colleague in a Tandberg T3 high definition room, taking advantage of both the interoperability project and the high-speed network available at Virginia Tech.*



◀ *Through the TelePresence Interoperability Project, participation is possible from multiple devices. The meeting pictured here shows a high definition videoconference room, a laptop, an iPad tablet, and an Android-based smartphone, taking advantage of both the interoperability project and the high-speed network available at Virginia Tech.*

## Reducing Password Clutter

**How many passwords do you have? Too many to remember? Do you use the same password for work, a banking service, and the rewards program at your favorite retailer?**

We know that we protect our work and personal information better if different providers (work, bank, store) don't have the same password, and if we don't write the passwords on yellow sticky notes. But it can be difficult to

remember so many, or even to keep entering the same one over and over!

The university's Central Authentication Service (CAS) allows you to sign into several university online services by entering your PID and password only once. CAS verifies that the combination of PID and password is correct, and sends a message to the online service that you are "authentic"! CAS also sends information needed to determine if you are eligible for






# The Switchboard

**When alumni, family, and friends return to Blacksburg after an absence, they invariably remark on the changes to the campus and the community: the new buildings, the new roads, the new stores.** They may even comment on the commonness of smartphones and mobile computing devices, although these are not unique to Blacksburg! Equally amazing changes have occurred in the complexity of the university itself: more students, more faculty and staff, more programs.

One area significantly affected by all these changes is the University Switchboard. Years ago, the switchboard provided callers with the phone number of a faculty or staff member, a department, or an on-campus student. Now, individuals typically handle those easy look-ups themselves, finding information from their contact list in their cell phone, or using the HokieMobile app on their Android device or iPhone, or using VT People Search from the universi-

ty's website. Instead, today's calls to the switchboard tend to be complex with people not knowing exactly what they are looking for—someone to help them get the grubs out of their yard, or looking for the "Spanish" department.

The university's coming communications system—Unified Communications—is working with the switchboard and other departments that have a high volume of telephone calls. The new system will use improved technologies to provide callers with the information they need. Smarter telephone menus provide for quicker and more direct service to each caller, matching availability and skills of the staffer to the type of call. The system opens options to work across different call centers (for example, the University Switchboard and 4Help), allowing a more efficient and effective fit between staffing and call patterns.

For more information on the Unified Communications Program, visit [www.nis.vt.edu/uc/](http://www.nis.vt.edu/uc/). 

## Reducing Password Clutter, *continues*

the service: your name, a unique identifier for you, and your relationship with the university (faculty, staff, student). Once you've signed onto the Central Authentication Service, other online services can receive that verification of authenticity at any time, creating single sign on, and allowing you to move freely among CAS-enabled online services without re-entering your

PID and password. Earlier this spring, Banner services—Internet Native Banner, HokieSpa, Travel and Expense, Workflow, and Document Management—became CAS-enabled, allowing easy flow among these services.

CAS never sends your password to the online service you're using, increasing security. This password protection works for

external vendors, too, such as PeopleAdmin, Cayuse 424, and HokieMart.

It is vital, however, that when you are done with CAS-enabled services, you close your Web browser so that the CAS services you've accessed are truly closed.

For more about CAS, see [http://www.computing.vt.edu/infrastructure\\_services/cas/index.html](http://www.computing.vt.edu/infrastructure_services/cas/index.html). 