Bridge Valley Community and Technical College Uses Seven Sinapse Training Simulators

When the Community and Technical College at West Virginia University Tech (now Bridge Valley CTC) opened its new National Publishing Innovation Center, its goal was to be the leading technical publishing center in the nation. The Center would bring together traditional printing, digital, and Internet technologies under one roof.

In August 2008, the Innovation Center became a reality. It opened in a $4 million, three-story building in Montgomery, West Virginia, built on the site of the old G. C. Murphy's building.

The Center features the Gannett Foundation Press Simulation Training Area (Simulators by Sinapse Print Simulators) , Scripps Howard Distance Learning Auditorium, Flint Ink Training and Research Lab, Frederick Press Lab, and Paper and Digital Printing Research Lab. It boasts forty new iMacs (its faculty all have iMac Pros), an executive conferencing area, flat screen TVs for presentations, a grand hall, plus universal wireless Internet access and laptop plug-ins into the side of every chair.

If this weren't impressive enough, the Innovation Center contains one of the most comprehensive press simulator training areas in the country.

Leading-Edge Simulation Capabilities

The Press Simulation Training Area operates seven modules of Sinapse Print Simulators. These include three Flexo (Inline, Common Impression Cylinder, and Corrugated), Sheetfed Offset Press (SHOTS), Heatset Web Offset, and two Newspaper Offset TKS Simulators (double-wide, four pages across like the one installed at Salt Lake City, UT, and three pages across like the one installed at Frederick, MD).

Newspaper simulator with a 3-screen configuration at CTC

The Publishing Innovation Center is the brainchild of Jack Nuckols, professor and chairman of the Printing Technology department. It was given flesh and bones with the support of James Skidmore, Chancellor, Community and Technical College System of West Virginia, who is a big fan of simulation.

"We like to use simulation technology to advance the delivery of printing technology throughout the state of West Virginia," Skidmore says. "It really expands the opportunity for students to participate in high-cost technical programs such as printing. I also see the use of simulation in this program as laying the groundwork for simulation in other technical programs."

Also very supportive of the simulator program is the National Newspaper Operations Advisory Committee, which is made up of alumni and industry executives from the Chicago Tribune, Gannett Newspapers, the Dow Jones/Wall Street Journal, Frederick News Post, Flint Ink, Pitman and Scripps Howard Newspapers. With the support of its prestigious alumni, CTC has become one of the only two technical colleges in the country to have a live Goss newspaper press. In fact, it has two. This support also helped the college obtain its Sinapse Newspaper Simulator module.

In addition to newspaper training, CTC also offers a full flexo lab, with a six-color Mark Andy 2200 inline press with all the bells and whistles and a variety of small-format offset presses.

The combination of live and simulated presses allows students to learn in both a live press and a simulation environment, where they can learn without the cost, mess, and danger associated with a live press. "Getting injured is not a fun way to learn!" says Nuckols.

One of CTC's simulator installations. Students are working on the PackSim-Flexo.

Plus, simulator training is a particularly powerful resource in CTC's offset program, where it has not yet secured a full-size sheetfed offset press. "Students can learn the basic mechanics of a live offset press, then learn the four-color aspects as if they were running a multi-unit sheetfed press," Nuckols explains.

Nuckols points out that the simulator is a natural fit for students, who are used to working and learning in a simulated environment. "Even the first time, it was easy for them to grasp this technology. They understand it and love it," he says.

Realism of the Simulator

Nuckols also praises the realism of the simulator—but likes that it's not too "real."

"There is no substitute for a live press, but in a training environment, there are things you cannot do on a live press because it's not practical," he says.

The Newspaper Simulator, for example, allows Nuckols to expose his students to a wider variety of press problems in a shorter period of time than he could live. The simulator comes standard with 100+ different problems, ranging from reelstand to conveyer. It covers aspects related both

to the consumables and to the press iron itself, many of which occur only rarely in a live newspaper production environment.

"The idea of running live is nice, but you don't learn as quickly as you would in this environment," says Nuckols. "The simulator is constantly throwing out problems you have to solve. For example, one training problem showed final copy with red dots and a dog ear folded down. My students shut down the 'press,' and within 30 minutes, they figured out how to correct the problem the way they would on a real press."
CTC instructors have also found that showing ink problems caused by reducing the water balance work out much better on the simulator than on either of the college's live newspaper presses. "In simulation, a quick adjustment cleans an inked plate, but the cleanup on our lab presses is dirty and might take several hours," says Nuckols. "Plus, we really like that we run live Goss equipment but the simulator is TKS, so the students see two manufacturers' presses and how they work."

The CTC also serves as a training location for TKS.

Plans for Press Simulation

The Bridge Valley CTC plans to get maximum use out of its press simulation capabilities. In addition to its student training, it plans to use the simulation in a variety of other ways:

- outsource training for printers and press manufacturers;
- outsource training for other community colleges;
- training sessions in prisons and other external environments;
- demonstrations on the road that will create additional visibility for the technical college.

Nuckols sees the future for cooperative training as particularly exciting. In addition to the opportunities to do things within the university's own system, such as sharing instructional methods, swapping problem-solving exercises, and running internal "print contests," the CTC has the opportunity to offer training to other colleges that cannot afford their own simulators.

Another innovative way use for the simulators is for community outreach. This includes looking at ways for teachers to offer printing programs in high schools and career technical schools and offering vocational training in the prison system. Currently, Nuckols is working with West Virginia Corrections Group, where several corrections complexes already have printing as part of their training. CTC is also preparing to work with other states on a similar program. In some cases, the students can achieve college credit.

New Times, New Methods

The CTC's goal for Spring 2009 is to finish installing all of its ink and paper testing equipment in the two new labs. By fall, it expects to offer its services to companies that might be interested in paper and ink evaluation by a third party.

In time, it also plans to start converting existing classes on campus to online.

Online education is another area where the print simulators can play a major role. “As the world evolves, training methods have to change as well,” says Nuckols. “Whether it’s online training or simulator training, you have to train the way students want to learn—and the environments where they learn most effectively—and our program is a perfect example of what works!”

The Bridge Valley Community & Technical College was established as a part of WVU Institute of Technology (WVU Tech) in 1966. In 2004, the Bridge Valley CTC was accredited as a separate institution by the Higher Learning Commission and is a member of the North Central Association. It offers a variety of two-year degree programs in high-demand technical fields such as engineering technology, printing technology, dental hygiene, diesel technology, computer technology, business and office technology, and allied health. The Bridge Valley CTC is co-located campus of WVU Tech, in Montgomery, West Virginia.

For more information about the simulators, contact: Jim Workman, Printing Industries of America JWorkman@printing.org