

Doing More with Less: Transforming a Program through Technology

By President Kevin J. Manning, Stevenson University

Founded in 1947 as Villa Julie College, Stevenson University has a long tradition of educating women and preparing students for healthcare professions such as nursing and medical technology. As a national leader in career education with 2,600 full-time undergraduate students, Stevenson is now in the position to make a significant positive impact on Maryland's and the nation's nursing shortage. The creative use of technology is the key to reversing this national trend.

In early 2000, it became clear that critical shortages in nursing, if not reversed, would rapidly affect the quality and level of health care that Americans have long experienced. One of the primary reasons for this anticipated problem would be the profound shortage of nursing faculty across the country, reducing the ability of colleges and universities to train enough nurses at the undergraduate level. With an established nursing program, including a RN-to-BS degree program, Stevenson knew it could play a vital role in tackling this national challenge.

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Initially, the University eliminated the use of internet instruction for nursing education because of limitations related to the average class size. Stevenson developed an innovative live video distance learning program in 2004

to address the interconnected problems of limited nursing faculty and the need to increase the number of students in the nursing pipeline. With the assistance of Maryland's U.S. Senator Barbara A. Mikulski and the Verizon Corporation, Stevenson was able to bring its RN-to-BS program to a greater number of working nurses across Maryland. Collaboration with the state's community colleges and the use of the latest in distance learning technology enabled us to successfully expand the reach of our existing nursing faculty.

The following chapter addresses the opportunities and challenges involved with this collaborative project and briefly reviews the use of technology in higher education.

Technology in Higher Education

In many ways, higher education has been slow to take advantage of technology to increase efficiency and enhance instruction, especially in the classroom. Of course, higher education as a research enterprise has been the primary driver of basic, applied, and computer research and technology, primarily in the latter half of the 20th century. The development of mainframe computers, the explosion of communications technology, and the steady advancement of the nation's defense technology have all been fostered by higher education's research mission.

But if one looked in the classroom, there was little use of these advances in information technology until the mid- to late-1990s. The basic exchange in higher education on the undergraduate level was direct verbal and visual classroom communication between faculty and students through textbooks and blackboards. Except for the use of traditional audio-visual tools such as overheads or projectors, higher education used the lecture format to accomplish its essential tasks. Little had changed over centuries.

Internet Revolution Paves the Way

Despite the extensive use of computers in higher education, the ability to decentralize their overall use had been slow in coming. In 1982, for example, I had to analyze data for a doctoral dissertation using a batch-mode punch card system. All of this changed with the development of the internet and its linkage to the personal computer (PC). With the onset of broadband networks and more powerful PC hardware and applications in the late 1990s, the internet's true ability to enhance the classroom experience for faculty and students alike became abundantly clear.

By the early 21st century, it was now a commonplace activity for faculty to bring to the classroom all of the world's information—video, audio, and text—to enhance the instructional experience. In addition, faculty and students were able to keep in touch 24/7 using standard classroom management applications. Beyond this, the actual use of technology expanded and full-motion video streaming became available, allowing the classroom experience to be transmitted real-time between distant sites. (The above material was adapted from an informative article on technology in higher education, *"Will Technology Really Change Education?"* Kent and McNergney, 1999, Corwin Press.)

A New Model Emerges

It was this real-time distance learning approach that Stevenson chose to develop in 2004 to help deal with the nursing shortage. Although an online program model would deal with some aspects of overall nursing enrollment, it still wouldn't address the faculty shortage. Stevenson's RN-to-BS program was popular. Although we had experienced and able faculty members, we could not see them serving as ongoing "road warriors," driving from site to site across the state.

By the late 1990s, some institutions were experimenting with full-motion video instruction that offered the advantages of internet instruction with a high-speed interactive opportunity in the classroom. Most importantly, this new type of video classroom permitted one faculty member to teach in several classrooms simultaneously. Stevenson was initially connected to a proprietary video network which limited the number of classrooms with which our faculty could interact. By 2007, we expanded to internet transmission, which permitted worldwide transmission of instruction and would not limit the number of classrooms.

In the development of this new video classroom model, we had to confront three essential facts about nursing education: 1) the significant shortage of faculty in nursing; 2) the widespread availability of video classrooms in community colleges throughout Maryland; and 3) the ability of students with the RN degree to study at the community college in their third year and complete their fourth year at universities such as Stevenson (allowing community college students in nursing to earn up to three years of credit in the two-year setting). The synergies existed but a new model had to bring these forces together.

To gauge interest in this model, Stevenson officials approached a variety of organizations, including hospitals experiencing serious nursing shortages. From these discussions it became apparent that community colleges presented the best scenario for collaboration. One of the advantages of the community colleges was the fact that all of their students had to complete clinical internships, mitigating the disadvantage that distance learning had relative to actual clinical experiences. The second advantage offered by community colleges was that most of the Maryland colleges already had video distance learning classrooms in place.

In discussions with various community college officials around the state, we found that there was a real need for this model and a willingness to provide financial support. Our first partnership was with Chesapeake College and Memorial Hospital on Maryland's Eastern Shore, which has established articulation agreements with seven other Maryland community colleges as of fall 2009.

Verizon Center for Excellence in Teaching and Learning

As Stevenson formulated this model, we realized that we were breaking new ground. We were not yet experienced in the use of full-motion video distance learning classrooms. The start-up for the program would require substantial funds. To get started, we identified an under-utilized lecture hall on our campus and began approaching foundations and corporations with interests in financing nursing education. The cost of fully equipping two sophisticated technology classrooms was estimated to be \$500,000, which included significant renovation of the room, construction of special tables, projectors, hardware, and other digital equipment.

Together with our community college partner, we demonstrated this model's value to workforce development. Senator Mikulski showed an interest in the project early on and attended the first

public demonstration between Stevenson and Chesapeake College. With her help, we secured a federal grant of \$248,000 for the project. The Verizon Foundation provided \$100,000 in funds for equipment, in addition to significant design and technical support. University funds allotted for the project totaled \$218,000. This successful collaboration allowed us to open the Verizon Center for Excellence in Teaching and Learning in October 2004. We established two comprehensive video distance learning classrooms that permitted us to teach three additional offsite classrooms across a distance at the same time.

As noted earlier, over time we realized the limitations of the proprietary network and in 2007 moved to a University System of Maryland network that gave us unlimited ability to broadcast around the world using a Web-based technology. The age of the digital classroom had arrived for Stevenson.

Digital and Video Classrooms Are Not Enough

Of course, digital and distance learning classrooms bring their own sets of challenges and require a host of services to support students and instructors. In the case of video distance learning, instructors require extensive training to be effective in this setting.

For digital learning, students and instructors also need technical support. We found the use of outside vendors to be the most effective approach. We contracted with an online vendor to provide 24/7 “help desk” solutions and identified an around-the-clock library reference service through collaboration with the State of Maryland. In fact, our Stevenson libraries have helped to adapt all library services to technology-driven support.

We also developed online tutorial assistance that would be available at all times and even provided a software system to assist students in setting up their own computers. While digital and distance learning classrooms provide solutions, they require a host of support functions to optimize their value to students.

Benefits of the Evolved Stevenson Model

The result of our move into video distance learning for the RN-to-BS program has been the successful development of a complement of subsequent delivery modes essential to the operation of a modern university. Stevenson has taken a “hybrid” approach to instruction—online, video distance, and traditional classroom—with the ability to adapt curricula to modes that best meet the demands of specific student groups, adult or traditional students, and to provide the appropriate support necessary to ensure their success. In the case of online instruction, our approach is guided by “Quality Matters” (QM), a faculty-centered, peer-reviewed process to certify the quality and effectiveness of online courses and support materials.

The flexible approach that we utilize for this hybrid model also has the benefit of affordability. Community college nursing students are able to take as many as three years of credit at the local community college. They can finish their fourth year at Stevenson’s normal private institution tuition rate, still making the overall cost to these students comparable to attending a Maryland state university as a commuter student, a fairly low tuition rate.

Finally, there is the issue of accessibility. By going directly to community colleges and hospitals with our nursing program model—and keeping it affordable and convenient—we increased accessibility and put more students in the state’s pipeline to completing a baccalaureate degree in nursing career.

Outcomes of the Model

Enrollment growth in our RN-to-BS nursing program has been one of the most significant outcomes of our model. From 122 students in RN-to-BS nursing in 2004–2005, to 270 students in RN-to-BS nursing in 2008–2009, Stevenson has realized a 125 percent increase. Of course, this increase directly translates into more qualified nurses entering the profession.

Another important aspect of our distance video effort was what our institution learned about online instruction. The collaborative solution helped to provide quality education in nursing in a way that wasn’t possible through our traditional classroom model. We now have a blueprint that we are already using to develop similar programs in the future.

Since 1991, Stevenson has graduated more than 1,000 baccalaureate-prepared nurses in both our traditional and RN-to-BS programs, adding a significant number of professionals to our region. In addition, because of the use of the video distance learning model, we were able to offer quality instruction without adding more faculty, an important factor given the shortage of trained faculty in nursing education.

Lessons Learned

It is difficult to overestimate the role of technology and its efficiency in higher education. Mega-universities are quickly emerging, such as the Open University in England and University of Maryland University College. When critical mass is reached and an irreversible technology shift occurs, colleges and universities that are not adept in using technology will struggle to keep up, similar to the struggle of newspapers now losing readership and advertisers to online media. Only educational institutions that take the initiative to experiment with technology and develop effective strategies for its use will be able to compete.

It is important to be patient. Much of the confusion over technology in higher education is generational. New faculty will bring with them a considerable amount of computer experience and interest.

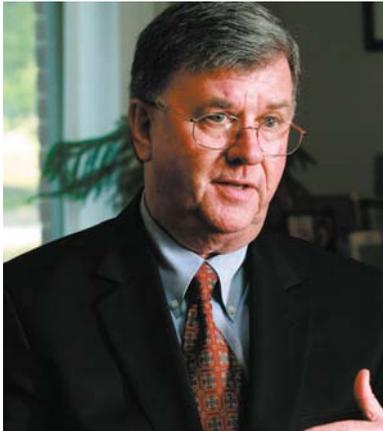
Yet, institutions need to focus their attention carefully. Remember, Stevenson University began its distance learning efforts with one program—nursing. This has developed into a distance learning division with extensive capabilities, flexibility, and quality-control measures. (Paul D. Lack, Ph.D., wrote an excellent article on some of these specific developments at Stevenson in *University Business*, “Distance Learning that Works,” October 2007.)

Be prepared for extensive investment and a considerable amount of lead-time for developing programs for online and distance learning. It can be very expensive to develop a single program of study, so return on investment scenarios should be analyzed. Because of careful research, we were able to develop a distance graduate program in forensic studies for less than a quarter of a million dollars. There was an obvious market need identified, and we have already experienced a successful payback. Advance research is valuable.

A Final Word

From Stevenson’s standpoint, we are glad we began the long journey into distance and hybrid learning when the opportunity arose. In my view, more and more learning at the higher education level will be via a hybrid technology model. New teaching and learning protocols are clearly escalating now after 25 years of relatively slow development. With the rising costs of higher education, gas, and the challenge of commuting by car, we all need to consider what benefits the hybrid technological educational model brings as we encounter the rapidly changing realities of higher education in the 21st century.

About the Author



Kevin J. Manning
President, Stevenson University

Kevin J. Manning assumed his role as the fourth president of Stevenson University on July 1, 2000. He was selected for the position after an extensive national search process that involved the Board, students, faculty and staff of Maryland's third-largest independent college.

President Manning's career in higher education spans more than four decades. Before coming to Stevenson University, he was vice president for development and college relations at Immaculata University in Pennsylvania. Previously, he held key administrative positions at Elizabethtown College in Pennsylvania, and at Washington University in Missouri.

Widely acknowledged as a visionary leader (he received the Ernst & Young Entrepreneur of the Year ® Award in 2007), President Manning guided the development of the institution's second campus, thus transforming the University from a commuter school to a residential one. In addition, he oversaw the process through which a name change and move to university status were implemented. Under his tenure, full-time enrollment has grown from 1,648 to 2,596.

President Manning's commitment to Stevenson extends far beyond campus boundaries. He is on the board of directors of the United Way of Central Maryland and is the co-chair for the current campaign. He is also on the Board of Directors of the Greater Baltimore Committee, the Maryland Business Roundtable for Education, and the Maryland Chamber of Commerce.

President Manning earned a Bachelor of Arts in Theatre from Webster University, a Master of Science in Counseling and Student Personnel from Shippensburg University, and a Ph.D. in Higher Education Administration from The Ohio State University.