



CU-COLORADO SPRINGS PROFESSOR USES COMPUTERS TO HELP BLIND

The computer revolution is changing the world — the sighted world anyway.

Computers and their screens are amazing tools. Most people use them to word process, calculate data or to assemble complex graphics or even movies.

But what about people who are visually impaired? How can they access a medium that is mostly visual?

Sudhanshu Semwal, associate professor of computer science at CU-Colorado Springs, thinks he has an answer.

Using his background in computer science and expertise in both three-dimensional graphics and virtual reality, Semwal has set his goal to make three-dimensional objects come alive for those people who cannot see them.

“I see computers as a great equalizer,” Semwal said recently. “It excited me to be able to develop a technology that could help those persons with a disability.”

Semwal has worked with the Colorado School for Deaf and Blind as well as some CU-Colorado Springs students to better understand how visually impaired people process information and how a computer could assist them. The idea struck him after spending a year studying virtual reality with Japanese computer giant Matsushita Electric, also known as Panasonic.

“My goal wasn’t to create another video game,” Semwal said. “I wanted to help others.”

The result is the acquisition of a desktop computer fitted with a robotic arm and a thimble-like device. As the operator navigates the computer screen, a series of impulses are fed through the thimble to the operator’s finger. Through vibration and constriction, visually impaired computer operators can navigate through virtual



Sudhanshu Semwal and freshman George McDermith navigating with the robotic arm.

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QUICK FEED

LETTERS, ARTS AND SCIENCES TO BENEFIT FROM GIFT Plans to form the first endowed professorship in the College of Letters, Arts and Sciences were announced April 10.

Chancellor Linda Bunnell Shade announced that Margaret Markert, of Colorado Springs, gifted her home to the University of Colorado Foundation. The eventual proceeds from the home's sale will be used to create the Clement L. and Margaret Markert Endowed Professorship in Biology at CU-Colorado Springs.

“As we celebrate this named professorship, we celebrate too Margaret Markert who has made this possible,” Bunnell Shade said during a reception at the Lodge where Mrs. Markert and her daughter-in-law, Pattie Pape from Palo Alto, CA were present. “Margaret, you have done a wonderful thing. Your endowment will serve to benefit countless students for generations to come.”

Prior to his death last October, Clement Markert served on the CU-Colorado Springs Science Advisory Board. He was a noted biologist with a distinguished teaching and research career at the universities of Michigan, Yale, North Carolina State and Johns Hopkins. Margaret Markert earned degrees in math from the University of South Dakota and the University of Illinois and was actively involved in academic matters.

Mrs. Markert’s gift is an example of a Retained Life Estate which is a special provision in the federal tax law permitting a contributor to transfer ownership of a personal residence to the Foundation and still retain the full use of the property while

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DIVERSITY PLEDGE

I believe

- that every person has worth as an individual.
- That every person is entitled to dignity and respect, regardless of race or color
- That every thought and every act of racial prejudice is harmful. If it is my thought or act, then it is harmful to me as well as others.

Therefore, from this day forward,

- I will strive daily to eliminate racial prejudice from my thoughts and actions
- I will discourage racial prejudice by others at every opportunity
- I will treat all persons with dignity and respect, and I will strive daily to honor this pledge, knowing the world will be a better place because of my effort.

— Birmingham, Alabama Pledge

The next issue of *Communique* will appear on May 15, 2000. For story ideas or submissions, please contact Tom Hutton, director of university relations, at thutton@mail.uccs.edu or at 262-3439.

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INDIVIDUAL ACTS KEY TO ACHIEVING CAMPUS DIVERSITY

Until diversity moves from a discussion of “we to me,” it cannot succeed, Rene Redwood, a senior consultant for the American Council on Education told CU-Colorado Springs faculty, staff and students to begin Diversity Week on campus.

Personal responsibility, as well as moving discussions about diversity “from the head to the heart” were key points of Redwood’s hour-long April 10 talk to a group of more than 50 gathered at the Lodge. She used personal and professional anecdotes to illustrate the value of diversity as well as the confusion around it.

“I talked to my father the other day and he told me he was living in a diverse community in Florida,” Redwood told the group. “When I asked him what he meant by diverse, he replied ‘why, we got people here from 50 to 80 years old.’”

“You can define diversity any way you want to,” Redwood said. “Diversity gives us a different perspective.”

Redwood gave an overview of several national studies about race relations in the work place,

in college admissions and her views of affirmative action and equal opportunity laws. For private business, embracing diversity is good for the bottom line, she said, before citing Texaco’s 11 percent stock drop during allegations of racial bias. At the same time, stock of other energy company stocks increased five percent.

“Many companies have come to realize that diversity is good for business,” she said.

Redwood criticized the media as well as researchers who often cast diversity as a black versus white issue and pit minorities and women against white men. Such efforts polarize discussions, often to the detriment of improving relationships. She also criticized the media for its role in characterizing federal Affirmative Action programs as benefiting minorities, without noting that women have benefited greatly from such laws.

“Not everyone knows a minority, but everyone knows a woman,” Redwood told the group. “It’s a lot harder to be against something when you know the beneficiaries.”

Redwood said Americans are confused about race relations, diversity and affirmative action, partially because of the media and partially because too often the issues are described in numerical rather than personal terms.

Chancellor Linda Bunnell Shade closed the opening ceremony by reciting a diversity pledge, signing it and reminding the group of their individual role in achieving campus diversity.

“You must tell yourselves ‘if it’s going to be, it’s up to me,’” Bunnell Shade said. ☺



Faces of America performance during Diversity Week

PROFESSOR EARNS FULBRIGHT

A CU-Colorado Springs assistant professor of sociology will travel to Chile as part of a prestigious William J. Fulbright Scholarship.

Kee Warner, a member of the CU-Colorado Springs faculty since 1993, learned of his selection in late March. He will teach in Chile during the 2001 academic year.

Fulbright scholars are a select group of scholars and professionals worldwide who are leaders in the educational, political, economic, social and cultural lives of their countries.

Warner's research will focus on sustainable community development and urban growth. He will focus on development and urban growth options that benefit people of all income levels.

Warner will teach at the Instituto de Geografia of the Universidad Católica de Valparaiso. The city of Valparaiso, about 70 miles from Santiago, is an area of great economic growth within one of the most prosperous countries in Latin America. Chile has experienced a transition from military rule to democracy and its citizens have witnessed problems associated with urban growth in the capital city of Santiago.

"Developing countries have had to be more conscious of impacts of economic growth than the U.S.," Warner said. "They are concerned with environmental quality in the Valparaiso coastal region and also with the social effects of development."

Warner hopes to develop ongoing relationships with Chilean academic and political leaders to give his teaching and research at CU-Colorado Springs a more global dimension.

Warner received a bachelor's degree in sociology and anthropology from Haverford (Pa.) College, a master's degree in planning and community development from the University of Colorado - Denver and master's and doctoral degrees in sociology from the University of California - Santa Barbara.

Warner is the 15th Fulbright award winner at CU-Colorado Springs in 15 years. Information about the prestigious J. William Fulbright Scholarship program is at <http://www.iie.org/cies/awards2000/usscope.htm>. 



Kee Warner

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reality maps and feel three-dimensional objects.

Students also assisted in the research. Former CU-Colorado Springs students Debra Evans-Kemp, Per Sordren and Catherine Tran worked closely with Semwal as part of their education.

Semwal's early success leads him to believe that eventually a visually impaired person could use a hand-held computer containing a three-dimensional map to navigate city streets and unfamiliar buildings. Images could come from data libraries or be programmed by a sighted companion or family member. Gone would be the sole use of cane to navigate unfamiliar territory. The computer could communicate such details as texture, hardness and distance directly to the operator.

"The sighted world has embraced computer technology to move away from words printed on paper," Semwal said. "This technology would allow the same freedom for others."

Semwal has also experimented with computer-assisted voice technology for visually impaired people. His work with head-worn devices using sound cues to "turn right" or "move left" was less promising than the touch-technology. Most visually impaired people have a keen sense of touch and it makes sense to connect those skills to the computer, Semwal said. He is part of an international consortium of researchers working to make computers more accessible to persons with disabilities and has applied for a two-year \$211,000 grant from the National Science Foundation to continue development of new technologies.

"The number of visually impaired people in the world is expected to double in the next 15 years, mostly in poor countries and among the aged," Semwal said. "We need to anticipate the need for this technology and accommodate it." 

Transition Teams Form to Alter Continuing Education

Representatives of the schools and colleges at CU-Colorado Springs, campus administrators and members of the Division of Continuing Education staff, will work together in coming weeks to change how continuing education is organized. John Pierce, vice chancellor for academic affairs, has appointed two committees to move continuing education course offerings and operations from a centralized office to offerings by individual schools throughout the campus.

"After careful study and close involvement of the Continuing Education staff, we have decided to decentralize the central office and place functions within the individual schools," Pierce said.

The committees will work on the transition until June 30, Pierce said, when the continuing education activity will be the responsibility of the schools and colleges. 

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receiving a current income tax deduction.

Contact the CU Foundation at 262-3467 for more information.

FORUM IDEAS HELP FORM NEW STRATEGIES

An April 6 Campus Forum generated new ideas to assist CU-Colorado Springs improve the way it works with the Colorado Commission on Higher Education.

"I am pleased with the ideas brought forth at the forum," Chancellor Linda Bunnell Shade said. "Times have changed and it is imperative that we change with them."

Bunnell Shade provided an overview of the CCHE which was formed in 1965 but in recent years has exercised additional authority over the direction of Colorado public universities, including CU-Colorado Springs.

Recently, the CCHE voted to eliminate the master's degree in physics offered at CU-Colorado Springs and has raised questions about the campus academic and physical site master plans. However, the commission has supported the renovation of Dwire Hall and the Engineering and Applied Sciences buildings.

"The news has not all been bad," Bunnell Shade said.

The forum generated several ideas about how the university should approach the CCHE in the future, including the following general themes

- Build more public support for the university's efforts
- Coordinate university fund raising efforts
- Continue to request the programs we believe are needed by our students and the community.
- Develop more cash-funded and distance learning programs
- Increase research to generate more funds for the university
- Improve graduate student recruitment
- Tie university efforts to the community
- Unite with other public universities in approach to CCHE

Bunnell Shade said these ideas and others would form the basis of future discussions with deans and unit directors and would form the basis of new strategies of working with the agency.

UNIVERSITY COUNSEL TO LEAD MANAGEMENT TRAINING The Office of University Counsel will lead three management training workshops for CU-Colorado Springs academic administrators and other administrators responsible for students and staff April 27.

The workshops will be offered concurrently beginning at 9:30 a.m. and 12:30 p.m. at the Lodge.

The workshops are:

STAFF WORKSHOP: Progressive Discipline for Classified Staff. This session will feature a panel discussion of legal and human resource experts and a case study on progressive discipline process from a legal perspective. The panel will discuss appropriate steps an administrator should take when disciplining an employee with emphasis on prevention of legal challenges through either the state employee system or the courts.

STUDENT WORKSHOP: Handling Student Issues as They Emerge on Campus. This session will feature a panel discussion designed to give participants an overview of legal issues surrounding students including an administrator's rights and limitations and the application of the law to student misconduct and academic integrity.

FACULTY WORKSHOP: Faculty Grievances - Understanding the Process and the Consequences. This session will provide a panel discussion on faculty grievances to the University's Privilege and Tenure Committee. The panel will cover the grievance process, investigations into faculty complaints and the alternative dispute resolution process.

Registration required. Contact Bobbie Schuppert, bschuppe@carbon.cudenver.edu or (303) 556-4339.

CAMPUS BUDGET TAKES SHAPE

CU-COLORADO SPRINGS will likely see a budget increase of about \$2.3 million next year because of additional state funds and enrollment growth, according to campus officials.

Ed Paris, associate vice chancellor for administration and finance, said the anticipated 6.2 percent increase in funding will be the largest percentage increase of the four University of Colorado campuses.

The CU-Colorado Springs base budget for FY 2001 will likely be \$40.96 million, Paris said, or a \$2.3 million expenditure increase over FY 2000. These figures will be presented to the University Budget Advisory Committee which will recommend to Chancellor Linda Bunnell Shade how those monies are allocated.

Initial recommendations, and estimated costs of those recommendations, are:

Four percent full and part-time faculty and professional exempt staff compensation increases, \$850,000.

Six percent classified staff compensation increases, based on the state salary survey, \$460,000.

Operating expense budget increase (including travel and student aid), \$209,000. This xx percent increase is the second consecutive year of operating expense increases.

- Hourly employee compensation increases, \$20,000
- Operation expenses for El Pomar Center, \$480,000.
- Increased costs to support CU system, \$170,000.
- Funds available for other initiatives, \$110,000

■ During the next few weeks, the 20-member UBAC committee will consider the recommendations as well as approximately \$1 million in requests for funding from throughout campus. David Fennell, professor of education and director of the University Counseling Center, chairs the committee.

A salary compression initiative could be funded from over-realized tuition, trade-offs with other initiatives or through internal budget reallocation. 