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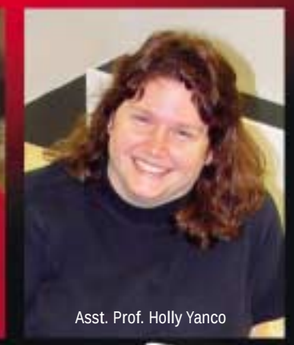
UMass Lowell MAGAZINE

FALL 2004
VOLUME 7
NUMBER 3

ROBOTS — and the Minds That Move Them

Asst. Prof. Fred Martin



Asst. Prof. Holly Yanco

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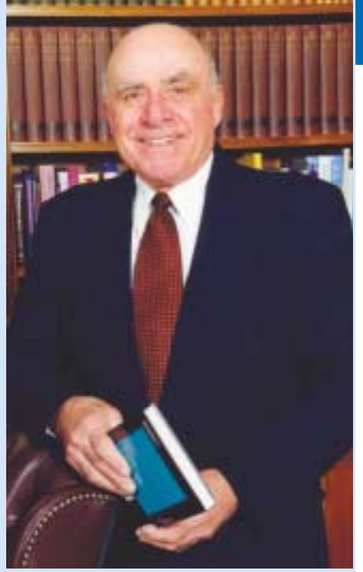

Dear Alumni, Parents and Friends:

In Massachusetts, we have learned that economic strength and social vitality flow from innovation. Ours is a knowledge-based economy. As UMass Lowell seeks to create more opportunities for people in our region and state, we focus on understanding how a particular region can renew itself — how it can flourish and re-flourish.

We believe that nanotechnology represents the best opportunity to develop and sustain a robust segment of the area's economy. Using materials as tiny as one-billionth of a meter in size, this technology is expected to generate two million jobs worldwide and $1 trillion in economic impact by 2015. More than 8,000 nanotechnology patents were awarded last year, three times the number in 1996. Real-world applications range from medical devices to renewable energy technologies. To that end, this past spring we announced that UMass Lowell would build a nanomanufacturing research center at the Lawrence Mills site along the Merrimack River. This enabling technology, which cuts across product sectors, offers us a chance to establish a competitive niche that capitalizes on the special strengths of the Lowell campus.

We are gratified by the widespread support for our nanomanufacturing initiative to date. Gov. Mitt Romney has proposed $19.5 million for the research center in Lowell, while the John Adams Innovation Trust, associated with the Massachusetts Technology Collaborative, has committed $5 million toward our nanomanufacturing endeavor. State and federal leaders are directing substantial amounts of research funding toward nanotechnology to keep our scientists and engineers on the leading edge. Several of the nation's top researchers in the field are on the UMass Lowell faculty. We are hopeful about the prospect of National Science Foundation funding to support research on plastics manufacturing techniques on the nanoscale, a collaborative project with our partners Northeastern University and the University of New Hampshire.

As always, we will need help from our alumni, friends and supporters in this ambitious effort to make UMass Lowell one of the world's best-known addresses for nanomanufacturing research. In doing so, we can improve the economy of Massachusetts, from the Merrimack Valley to the Berkshires to Cape Cod. You will read more about this exciting development in future issues of the *UMass Lowell Magazine*. Please join us on this promising journey.

Sincerely,

William T. Hogan

Chancellor

Calendar of Events

For more information on alumni activities, please check our **Alumni Website Calendar: www.uml.edu / Alumni** or call the Office of Alumni Relations toll free (877) UML-ALUM or 978-934-3140.

SEPTEMBER 2004

Wednesday, September 8
Bay Area Alumni Event
Boston Red Sox vs. Oakland A's
Network Associates Coliseum
Oakland, Calif.

September 18 – 27
Alumni Campus Abroad
Sicily, Italy

Thursday, September 23
Circle of Distinction Reception
American Textile History Museum
Lowell

Sunday, September 26
Beauty and the Beast
Family Discovery Series
Durgin Hall
UML South

OCTOBER 2004

Tuesday, October 12
Reading by Andre Dubus, author of *House of Sand and Fog* and UML faculty member.
Parker Lectures Series
O'Leary Library, UML South

October 15 - 16
Fall Festival Reunions

NOVEMBER 2004

Saturday, November 6
Francis Cabot Lowell Awards and Athletic Hall of Fame Dinner
American Textile History Museum
Lowell

Sunday, November 7
Lazer Vaudeville
Family Discovery Series
Durgin Hall
UML South

DECEMBER 2004

Sunday, December 5
Comedy & Pet Theatre
Family Discovery Series
Durgin Hall
UML South

JANUARY 2005

January 24 - February 6
Alumni Campus Abroad
South America

FEBRUARY 2005

All Alumni Hockey Night
Tsongas Arena
Date TBA

All Alumni Tubing Event
Nashoba Valley Ski Area
Westford
Date TBA

MARCH 2005

Sunday, March 6
Frog and His Friends
Family Discovery Series
Durgin Hall
UML South

Florida Alumni Events
Date TBA

APRIL 2005

Sunday, April 3
Twice as Many Friends / El Doble De Amigos
Family Discovery Series
Durgin Hall
UML South

MAY 2005

Sunday, May 1
Smythe & Saucier in Circo Comedia
Family Discovery Series
Durgin Hall
UML South

Monday, May 2
Plastics Engineering Alumni & Friends
"50 Years of Plastics at Lowell"
Boston Copley Marriott Ballroom
Boston

May 31 - June 8
Alumni Campus Abroad
Ennis, Ireland

JUNE 2005

Sunday, June 5
Commencement
Tsongas Arena
Lowell

June 26 - July 4
Alumni Campus Abroad
Chianti, Italy

JULY 2005

July 6 - 14
Alumni Campus Abroad
Krakow, Poland

For more information on Athletics, go to www.GORIVERHAWKS .com or call 978-934-2310.

For more information and reservations on the SMARTS Program, please call 978-934-4452.

For more information and reservations on the Family Discovery Series, please call the Center for the Arts at (978) 934-4444.
Hours: M-F 10 a.m.-3 p.m. & one hour before shows. Price: $10 single tickets, subscriptions $8-9.50

Interested in subscribing to *The Connector*, UML's student newspaper? Please call (978) 934-5009 or e-mail your request to connector@uml.edu

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E-mail: Alumni_Office@uml.edu

Write to us using this form with news about your family, career or hobbies. If you send us a photo we will gladly include it and return it to you after it appears. This form may also be used for updating a new business or home address or phone number.

Be sure to give us your e-mail address so you can receive our e-newsletter.

Please check box if information is new.

- ❒ Name: _____
  Women: Please include your graduation name.
- ❒ Class Year: _____ Major: _____
- ❒ Home Address: _____
- ❒ City: _____
- ❒ State: _____ Zip: _____
- ❒ Home Phone: _____
- ❒ E-mail Address: _____
- ❒ Employer: _____
- ❒ Title: _____
- ❒ Business Address: _____
- ❒ City: _____
- ❒ State: _____ Zip: _____
- ❒ Business Phone: _____ Fax: _____

What topics would you enjoy reading more about — Alumni, Students, Faculty, Campus?

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Please check the activities with which you would like to help:

- ☐ Alumni Relations Council
- ☐ Regional Events
- ☐ Career Services
- ☐ Community Service
- ☐ College/Departmental Activities
- ☐ Regional Chapters
- ☐ Class Reunions
- ☐ Please send me a copy of the latest Lowell Alumni Handbook, which includes information on all alumni benefits, services and activities.

News about you:

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Thank you!

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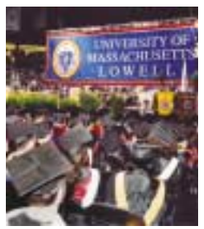

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Lowell Textile School • Massachusetts State Normal School • State Teachers College at Lowell • Lowell Textile Institute
Lowell Technological Institute • Massachusetts State College at Lowell • Lowell State College • University of Lowell

Colleges - Arts & Sciences

At the New England Botball tournament, officials re-set the game board for a seeding round. High school teams designed and programmed their robots to operate autonomously as they moved cups and tried to place a ball in a corner "basket."

Botball, Botfest Fill Rec Center with Ingenuity

Lowell's Campus Recreation Center was the scene of a high-tech, high-energy competition on a recent spring Saturday, as 14 high school and middle school teams from Massachusetts and Rhode Island competed in a national Botball program.

Student teams had just seven weeks to create robots — using kits from the KISS ("Keep It Simple, Stupid") Institute for Practical Robotics — that competed completely on their own, with no remote control.

"These are robots with brains," says Holly Yanco, assistant professor of computer science. "Students designed, built and programmed their robots, and the competition was very exciting."

Scoring depended on collecting yellow cups, pushing blue cups onto opponent territory, or dropping a ball in a basket — and, of course, the all-important matter of starting and stopping on signal.

Overall standings, based on tournament play combined with Web documentation, were South Kingston (R.I.) High School, first; Algonquin Regional High School, second; and Waltham High School tied with Wellesley High School, third.

An associated event, the Botfest, was an exhibition of robotics and animatronics for inventors of all ages and included demonstrations by college students, school groups and community exhibitors.

Brunette Develops Safety Training Program for Hispanic Workers

In the construction industry, education is a matter of life and death.

Hispanic construction workers are particularly at risk for injury and death due to language barriers and lack of job experience.

Local 175 Business Manager Michael Gagliardi, right, who Asst. Prof. Brunette says has been instrumental in developing the Construction Outreach Program for Hispanic workers, oversees construction on Boston's Big Dig with a laborer.

To address this need for greater safety, Asst. Prof. Maria Brunette of the Department of Work Environment has been awarded a $105,626 grant from the Occupational Safety and Health Administration (OSHA) to develop a Construction Outreach Program for Hispanic workers.

"Hispanics have higher fatal occupational injuries than any other ethnic group in the country in the construction trades," explains Brunette.

"The fatality rate for Hispanics is 20 percent higher than rates for white and black workers."

One of the main reasons for this trend is most (OSHA) programs are written and delivered in English. This creates an obvious problem for workers who read or speak little English. Brunette's program, which begins this fall, will be delivered entirely in Spanish.

"The program is a concentrated 10-hour session, which will train Hispanics in the base skills and knowledge needed to be valuable, safe and productive in the construction trades," Brunette says. "It will feature practical materials and curricula written in colloquial Spanish, such as training manuals, visual aids, health and safety alert cards and a Spanish construction dictionary."

The need for actual field workers and program evaluators prompted Brunette to partner with the Laborers International Union of North America Local 175 and its business manager, Michael Gagliardi.

Math Team Achieves High Rank in International Competition

Each February since 1998, UMass Lowell has fielded teams for the Mathematical Contest in Modeling, an international competition sponsored by the non-profit Consortium for Mathematics and its Applications.

James (Kiwi) Graham-Eagle, professor and chair of the Mathematical Sciences Department, is the team coach.

In 2004, one of UMass Lowell's teams achieved the ranking of Meritorious, the third in our history of the competition. This is the second highest rank and places UMass Lowell in the top 11 percent of competitors — and ahead of teams from the University of Michigan, Cornell, Northwestern, Worcester Polytechnic and Boston University. In all, 599 teams entered from 11 countries.

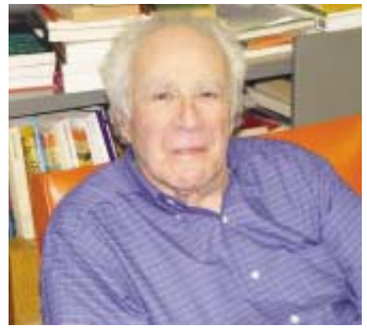
The competition may be cerebral, but it's hardly for the faint of heart. Teams choose one of two problems posted at 8 p.m. on a Thursday.

Using any published sources and consulting only with each other, they study and attempt to solve the problem and submit a report by 8 p.m. the following Monday.

Zaitchik Wins Playwright's Award as Career Enters New Stage

Prof. Joe Zaitchik of the English Department traveled to the Lambs Club in New York City this spring to receive the 2004 Stanley Drama Award for his new play, *Be Our Joys*.

The prestigious award, which includes a prize of $2,000, was established in 1957 by Alma Timolat Stanley to encourage and support aspiring playwrights. As many as 200 plays are submitted annually and ultimately judged by a panel of three guests which has included such notables as Edward Albee, Geraldine Page and David Susskind.



English Prof. Joe Zaitchik is the Recipient of the 2004 Stanley Drama Award.

Zaitchik describes the play as a comedy with a very serious theme.

"I'm very much interested in mysticism. This play is based on the philosophical question of why good people suffer so much," says Zaitchik.

It was his youngest son Daniel, himself a professional actor, who got Zaitchik thinking about playwriting. Over the years, the self-described "dabbler" has published poems, short stories, academic articles and textbooks, but had not written a play.

"Once Daniel started acting in New York, I started seeing a lot of plays," says Zaitchik. "I found myself critiquing what I saw and decided I should give it a try."

Since then, he has written five plays, most of them full-length.

"I got bit by a bug," he says. "It's exhausting, but I love it."

Despite the accolades for *Be Our Joys*, none of his plays has been published.

"My career as a playwright has been less than moderately successful," says Zaitchik.

Greher, Tobin Work in Concert to Reinvigorate Music Teaching

Two faculty members — one from the advertising business and the other from secondary education — have revamped the University's music education program.

For 20 years, Asst. Prof. Gena Greher plied her trade as a music director for a New York advertising company, collaborating on such familiar jingles as, "Just for the taste of it — Diet Coke."

"I was interested in the challenge of creating something from nothing," Greher says.

During the '90s, however, the advertising industry began to rely less and less on original music — turning instead to existing pop melodies.

"My job," she says, "was less relevant."

The native New Yorker elected to return to school, earning her Ed.D.from Columbia University Teachers College, focusing on the integration of the arts into school curricula. She joined the UMass Lowell faculty in 2002.

After teaching in the Milford Public Schools for 15 years, Asst. Prof. Nick Tobin decided it was time for a change and returned to school to earn a Ph.D. from the University of Connecticut. He then began a career in academia, spending time at Boston University and Regis College before joining Greher as one of the core instructors of the Department of Music's revised dual-degree music teaching program.

"The history of the music education program really excited me," says Tobin. "The University has a really wonderful music education history."

The two were integral in revamping the program, which allows students to earn both a bachelor's and master's

Music profs. Nick Tobin and Gena Greher, who came to UMass Lowell in 2002, have revamped the entire program in music teaching.

degree in five years. Working primarily with undergraduates, Greher teaches general methods courses including Multi-Cultural Music in Education and Technology and Music Education. Tobin teaches and serves as the graduate coordinator.

"I think the program has tremendous potential," says Tobin, who also sits on the executive board of the Massachusetts Music Educators Association. "I think we're going to bring it back to where it was — the premiere music education program in the state."

Greher and Tobin's restructuring of the music teaching curriculum has placed increased emphasis on analytical thinking and music research.

As a result, students can take a much broader view of educational philosophy as well as music itself.

Bioprocess Center Changes in Step with Biotech Growth

The biotechnology industry has been through some major changes since its inception.

"More like a roller-coaster," says Carl Lawton, associate professor of chemical and nuclear engineering and director of the Massachusetts Bioprocess Development Center. Biotech went from the early excitement of being able to make known proteins, such as insulin and interferon, through a disappointing period of trying to make brand-new discoveries, many of which failed.

A more cautious optimism has returned with the decoding of the human genome and the ability to test substances, in rapid-fire fashion, to discover potential pharmaceuticals.

Lawton has seen those changes first-hand, as the Center successfully helped many companies scale up and develop their production processes.

"Engineers understand the difficulties of working in larger volume and taking a biopharmaceutical from a beaker-full to a multi-liter vat process," says Lawton. "We can help design from the beginning or improve the fermentation process of a well-established product. In one case, we were able to quadruple a company's production of the vaccine against feline leukemia."

Carl Lawton, director of the Massachusetts Bioprocess Development Center, helps biotech companies prepare critically needed test material, scaling up to the 16-liter fermentation vat shown here.

Lawton is now leading a statewide consortium to develop the Massachusetts Bio-Pharmaceutical Center (MBPC) that would help to produce high-quality clinical material for small biotech companies.

Physics 'Interactive' Gives New Look to Large Lectures

Physics Prof. Aram Karakashian faces a class of 100 or more freshman physics students and asks a question.

Karakashian is not naïve. He doesn't expect any student to raise a hand and essay an answer.

"They don't want to look foolish in front of their peers," he says.

But within moments, every student has chosen one of five possible answers to the question, every student's response is logged into the grade book and a distribution of responses appears on a large screen at the front of the lecture hall.

Welcome to the new world of interactive science teaching.

How does Karakashian rate the new system?

"Last semester was the first time I used it and the class average seemed higher," he says. "But I'm a scientist and I need to confirm the result by replication. I have class averages and other data going back 12 to 15 years."

There are challenges. The transponders and online textbook are an additional cost to students and an additional frustration occurs when servers go down or registrations don't register.

Even setting up for the lecture takes longer. But Karakashian is highly motivated.

"I want to see the kids get into it and succeed," he says. "Not just physics majors — all the people who will use physics in their work and in their lives."

Freshmen in a physics lecture demonstrate how to answer a question with their individually registered transponders. From left, they are Daniel Joseph of Boston, Russell Littlefield of Haverhill and Brian Khoyi of Chelmsford.

HUD Grant Connects Students with Community

Five graduate students in the Regional Economic and Social Development Department (RESD) have completed fellowships supported by a two-year, $90,000 grant from the Department of Housing and Urban Development (HUD).

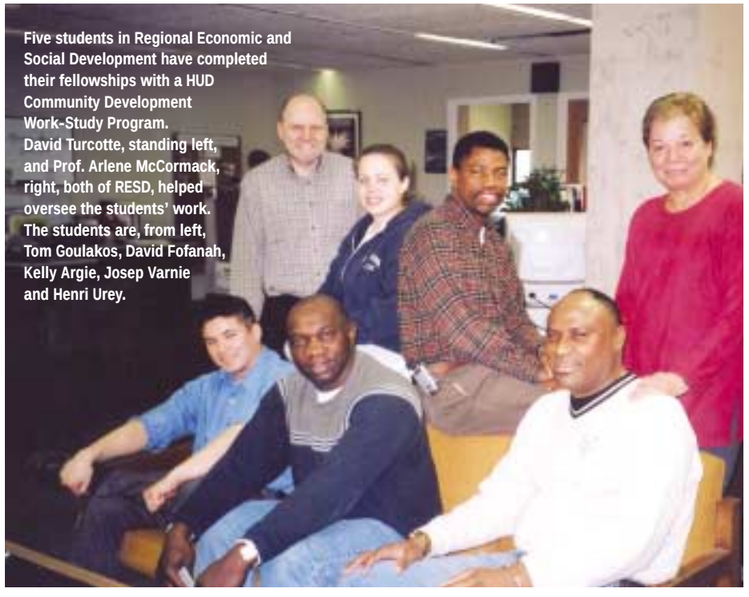
The grant, which was matched by the University, required students to work 15 hours a week as community development fellows for organizations such as the Coalition for a Better Acre and the Merrimack Valley Project.

Prof. Chris Tilly, one of those overseeing the students, says the University is seeking to continue funding in the next cycle.

"The competition is tough," says Tilly. "But, so far, the students have gotten a lot out of it. It's been quite valuable."

Dave Turcotte, program manager with the Center for Family, Work and Community and adjunct faculty in RESD, says, "The program fits well with the UML mission because we've got students working in the community doing community development work. It benefits the organizations because it gives them resources and staffing, allowing them to do things they might not be able to do otherwise."

In exchange for their efforts, students receive tuition remission and a small stipend, in addition to the opportunity to gain real-world experience in a professional organization.



Five students in Regional Economic and Social Development have completed their fellowships with a HUD Community Development Work-Study Program. David Turcotte, standing left, and Prof. Arlene McCormack, right, both of RESD, helped oversee the students' work. The students are, from left, Tom Goulakos, David Fofanah, Kelly Argie, Josep Varnie and Henri Urey.

Students Learn the 'Write' Stuff About Sustainability

What is sustainability? And how are faculty and staff at the University involved? Students in Adjunct Prof. Bridget Driscoll's News Writing class found out this spring.

The course was restructured to include a service-learning component around the theme of sustainability. Driscoll collaborated with Jack Luskin of the Toxics Use Reduction Institute (TURI) and Mitch Shulman of Media Services to integrate the new topic and new digital editing equipment into the course. By the end of the semester, students completed three projects — a news article, a one-minute radio piece and a short video documentary.

"The project appealed to me because it would provide the students with a unique learning experience beyond the walls of the classroom and into the community at large," says Driscoll. The changes have created a more positive response than anyone expected — from the students, the interview participants and others on campus.

Prof. Sammy Shina, mechanical engineering, says the article that student Christie Hodge wrote about Shina's research with lead-free electronics has finally given him a way to explain his work in a way people can understand.

"The work Bridget is doing is exactly the kind of outreach that we hope will continue to grow at the University," says Linda Silka, special assistant to the provost for community partnerships and director of the Center for Family, Work and Community.

Luskin and Anne Berlin Blackman, also of TURI, served as resources around the topic of sustainability. Students interviewed campus or community members about their work, from Julie Villareal's vermicomposting project to Shina's lead-free electronics research.

Funded in part by the Provost's office, students are learning to piece together video documentaries on the latest digital editing equipment in Media Services.

Quilters, Girl Scouts Help Children Entering Foster Care

The Psychology Club has concluded its third annual Welcome Pack Drive, presenting more than 100 children's backpacks to the Massachusetts Department of Social Services (DSS).

The packs contain age-appropriate items such as underwear, toiletries and other essentials needed by children entering foster care. Many children enter and move within the system so quickly that they have little time to collect what belongings they have. The packs help ensure the basics are provided for.

Jessica Molignano, center, and her Cadet Girl Scout troop raised $500 to support the Psychology Club and Department's Welcome Back Drive, benefiting children entering foster care. Molignano and her alumna mother Dottie '80, left, delivered nearly two dozen back packs and other items to Prof. Charlotte Mandell of psychology.

Jessica Molignano of Westford learned about the project when a member of her Cadet Girl Scout troop saw an item in the local newspaper. The troop hosted a "battle of the bands" at the Parish Center for the Arts in Westford, raising $500 to support the Welcome Pack Drive.

The Tewksbury Piecemakers Guild also saw a notice in their paper and decided to contribute their efforts to the Welcome Pack Drive as well.

The guild, which gathers weekly to quilt blankets and other items for a series of charities, delivered 15 baby quilts, 30 pillow cases and 45 Teddy bears.

Colleges - Education

GSE Grant Targets Science Education

The 2003 MCAS science test results indicated a serious deficiency in science content and skills among Massachusetts's students. With statewide failure rates in fifth and eighth grades at 14 and 30 percent, respectively, the need for improved teaching in science is clear. The Lawrence and Lynn school districts have partnered with the Center for Field Services and Studies (CFSS) and Salem State College to tackle the problem of developing science instruction in their schools.

The Massachusetts Board of Higher Education awarded an Improving Teacher Quality State Grant to CFSS, Salem State and the two partner schools to develop and deliver science institutes to K-12 teachers during the summer and fall of 2004. Nearly $200,000, plus an additional $60,000 in matching funds from the partner institutions, are funding the one-year program, Project SPIRE (Science Partnership Institutes Renewing Education).

"We are excited to provide a forum for K-12 educators to come together with scientists, science educators and engineers to design a seamless curriculum that best meets the needs of their particular district," says Michelle Scribner-MacLean, principal investigator and full-time lecturer in the Graduate School of Education.

Demo School Accredited By NAEYC

The Demonstration School, a partnership between the Graduate School of Education and the Lowell Public Schools, has earned accreditation from the National Association for the Education of Young Children (NAEYC) — the nation's leading organization of early childhood professionals.

"We're thrilled to be accredited by NAEYC, and recognized for our commitment to reaching the highest professional standards," says Dr. Ann Benjamin, director of the Demonstration School. "NAEYC Accreditation lets families in our community know that children in our program are getting the best care and early learning experiences."

The preschool-to-fourth-grade school was founded to provide exemplary early childhood instruction to children from diverse cultural and linguistic backgrounds.

Online M.Ed. Grads Hail from California to Brazil

Having graduate students from New Hampshire, Pennsylvania, Indiana, California and Brazil is not usual. But what if they have never stepped on campus, met one another or their professors? In June, 10 Graduate School of Education students were the first to have earned their master's degree entirely online at UMass Lowell.

Two students in the online educational administration master's program — Jessica Aran, right, of Plymouth, Mass., and Linda Szypula, left, of Egg Harbor Township, N.J. — finally met face-to-face during graduation ceremonies. They also met Asst. Prof. Judith Davidson, second from left, and Media Services Director Mitchell Shuldman. In June, 10 students were the first to have earned their master's degrees entirely on-line.

"Having cross-continental and international students, in addition to regional students, speaks to the quality of the program provided by our faculty," says Dean Donald Pierson of the Graduate School of Education (GSE). "Students want convenient access to strong degree programs and being able to convert an existing program online is one way to do that."

The Master of Education in Educational Administration program is a collaboration of GSE and the Division of Continuing Studies and Corporate Education (CSCE) to prepare teachers using a mix of online courses and field experience to advance their careers to director, principal, and superintendent roles.

The location of the students is only half the story. The enrollments for the master's program have skyrocketed since it was introduced online in the Fall of 2001. For a program that was enrolling less than a dozen students annually, the numbers have continued to grow over the last two years to 75 matriculated students this past semester.

"The online master's in educational administration, similar to our other online graduate programs, continues to attract students from diverse locations. We hope to significantly expand these numbers in the future," says Catherine Kendrick, director of Corporate and Distance Marketing Development for CSCE.

Colleges - Health

New School of Health and Environment Celebrated

The University community, colleagues and friends gathered early this spring to celebrate the new School of Health and Environment, which includes the departments of Health and Clinical Sciences, Nursing, Physical Therapy and Work Environment.

Chancellor William T. Hogan spoke of the creation of this School, which became official in January, as a significant step in the campus's "long-term efforts to demonstrate the ways a public campus can help a region sustain its quality of life."

Discussing the event in a separate interview, Prof. David H. Wegman, dean of the School, said, "The new School is guided by a vision of human health that links individual well-being to healthy communities and environments. We are planning innovative ways to combine outstanding teaching, the University's commitment to community service and our proven success in interdisciplinary problem-solving."

At the celebration, former Dean of the College of Health Professions Janice M. Stecchi was honored as the first recipient of the Provost's Award for Lifetime Achievement.

U.S. Rep. Martin T. Meehan applauded the campus for its "continuing leadership role in the region, focusing its research and teaching on the complex interactions that make success sustainable."

State Sen. Steven C. Panagiatakos said, "The creation of this new school at UMass Lowell is a great example of why we need to support public higher education in Massachusetts."

SCHOOL OF
Health & Environment
UNIVERSITY OF MASSACHUSETTS LOWELL

Campus - Outreach

Start-Up Holds 'Graduation Party'

After three years in UMass Lowell's Commercial Venture Development (CVD) center in Wannalancit Mills, Axiom Valuation Solutions is moving to its own facility.

"Graduation," an important milestone in the life of a start-up company, was celebrated with anecdotes, parting gifts and cake.

Axiom, like most new companies, started with little more than a good idea and a need for help. Founded by business executive Roger Winsby and Stan Feldman, associate professor of finance at Bentley College, the company helps small business owners determine their company worth, using high quality valuation and financial analysis tools, and at a fraction of the cost of a traditional business valuation.

Axiom, now a $2.5 million, seven-employee company, has moved to Wakefield.

Louis Petrovic, left, director of External Funding, Technology Transfer and Partnering, talks with Roger Winsby, co-founder of Axiom Valuation Solutions. The company "graduated" from UMass Lowell's Commercial Venture Development center.

Kerouac's Scroll Is On the Road to Lowell

Lowell has been selected to host an exhibition of Jack Kerouac's legendary *On the Road* scroll as part of a national tour of the extraordinary literary artifact. U.S. Rep. Marty Meehan made the announcement on what would have been Kerouac's 82nd birthday, in the presence of the numerous agencies involved in bringing the scroll to the city, including the Lowell National Historical Park, the University and the Cultural Organization of Lowell (COOL).

U.S. Rep. Marty Meehan, right, joins John Sampas, the literary representative of the Jack Kerouac Literary Estate, at the announcement that Kerouac's On the Road scroll will come to Lowell. Sampas announced a $12,500 matching donation to help defray the cost of bringing the project.

"It's only natural that a national tour of his prized work would be coming to this city," says Meehan, who was integral in ensuring that Lowell was on the tour schedule. In Kerouac's hometown, the scroll will be shown at the Boott Cotton Mills Museum of the National Park Service, from June 1 through Aug. 15, 2007.

The yellowed manuscript of Kerouac's beat generation novel, which the author typed on a 120-foot paper scroll in a 21-day marathon in 1951 and was published six years later, is on a 13-stop national tour of museums and libraries. The tour to the city will conclude with an exhibition at the New York Public Library in the fall of 2007, the year marking the 50th anniversary of the publication of Kerouac's classic novel.

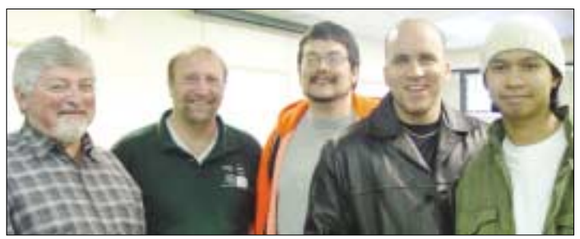
Computer Science Transforms Community Outreach

The University's Community Software Lab has created a database system for the United Teen Equality Center (UTEC), whose community outreach workers do gang intervention, leadership training and local organizing.

Gregg Croteau, executive director of UTEC says, "All our forms and reports are online, which frees up time for direct service to clients. It's revolutionary in the field of youth development. This would have been impossible to do on our own."

The Lab serves the Lowell Telecommunications Corporation (LTC), which is assisted by the University's Computer Science Department. LTC serves non-profit organizations, such as UTEC.

Staffed by student volunteers, the Lab offers free services such as e-mail, software and database development.



The Community Software Lab, which offers free services to non-profit organizations, was the focus of a Computer Science Colloquium recently. Helping to celebrate were, from left, Prof. Thomas Costello, chair, and Prof. Jim Canning, both of computer science; Dan MacNeil, computer science major and leader of the Lab; Gregg Croteau, executive director of the United Teen Equality Center; and Sovanna Pouv, UTEC technical coordinator.

The Healthy Homes project, a two-year collaboration of the Center for Family, Work and Community and the Lowell Health Department, includes training seminars for representatives of community organizations. Participants pictured are, from left, Pean Chhuon, Clarendon Family Daycare; Jane Ginsburg, Lower Highlands Neighborhood Group; Jennifer Pires, Elaine Melanson and Jennifer Taylor, all of Community Teamwork Inc.; and Rene Demers, City of Lowell Fire Department.

CFWC Project Targets Dangers in the Home

In the year 2000, nearly 20,000 children were exposed to or poisoned by household chlorine bleach in the United States.

Problems such as this one are being addressed by UMass Lowell's Center for Family, Work and Community (CFWC) and the City of Lowell's Health Department in a two-year project called Healthy Homes.

The goal of the project is to increase the understanding of unhealthy home issues within the diverse communities of Lowell.

In the first of a series of training seminars held recently for representatives of community organizations and participating University students, Assoc. Prof. Stephanie Chalupka of nursing stressed the importance of cultural responsibility.

"We think of home as a safe haven," said the director of baccalaureate nursing and creator of the project training manual, *Cross-Cultural Approach to Healthy Homes: Healthy Solutions for Healthy Families*.

In reality, though, she said the home may be littered with hazards such as lead, carbon monoxide and carpet cleaners, which could endanger children.

Colleges - Engineering

Malloy Shares Knowledge with PBS

Prof. Robert Malloy, chair of the Plastics Engineering Department, is understandably enthusiastic about his subject. So, he was pleased to help develop an online feature about the history and future of plastics for the WGBH American Experience's Wayback Web site, "The Future."

Malloy invited Ravi Jain and Joe Bunik of the American Experience to visit campus for a hands-on primer on plastics. The result — the M.F.P.P.L. (Multi-functional Plastics Production Lab), a virtual process lab that even includes audio from some UMass Lowell machines.

Graduate student Bhavjit Ghumman provided the "plastics expert" interview, which, according to Jain, "served as a great FAQ on plastics engineering and helped reinforce that there is still much to be explored and discovered."

UMass Lowell Professor Is 'Science Guy' at Florida Baseball Field Trip

When PBS broadcast a show this spring on "The Physics of Baseball," which was carried live to schools across the country — 14 million students in 47 States — the network turned to two men for on-screen help.

The first was Baseball Hall of Famer Ozzie Smith, who showcased the hitting and fielding, the day-to-day playing of the game; the other, to explain the physics — what actually happens, for instance, when the bat meets the ball — was Prof. Jim Sherwood of the UMass Lowell Mechanical Engineering Department.

The broadcast, dubbed an "electronic field trip," was organized, in part, by the Teachers' College at Ball State University in Indiana, which was in charge of the audio-visual work. To fulfill the content end of its job, Ball State turned to the Baseball Hall of Fame, which

Prof. Jim Sherwood, fourth from right, with some of the students, from both Florida and Indiana, who participated in the baseball field trip program. Ozzie Smith's daughter is at the far left.

recommended Smith, a long-time Hall of Fame shortstop for the St. Louis Cardinals, as host of the program; and to Sherwood, who has done extensive ball- and bat-testing for both Major League Baseball and the NCAA, to serve as what he calls "the science guy."

"I talked about flight, trajectory, impact, those sorts of things," says Sherwood. "The idea was to illustrate the basic concepts of physics to middle- and high-school students, using baseball as the vehicle."

Prof. Jim Sherwood, right, and Baseball Hall of Famer Ozzie Smith, formerly of the St. Louis Cardinals, between exhibitions at the "electronic field trip" in Jupiter, Fla. The event, designed to illustrate the concept of physics through the medium of baseball, was carried live on PBS and aired to an audience of 14 million students in 47 states.

University Plays Prominent Role in FIRST Event

Mechanical Engineering Prof. Sammy Shina tries out a Segway at the FIRST (For Inspiration and Recognition of Science and Technology) regional competition in Manchester, N.H. Shina and Asst. Prof. Holly Yanco of computer science were judges at the event, and the Submillimeter-Wave Technology Lab sponsored a high school team. The regional competition, one of more than 30, paired high school teams with engineers to develop and build a robot in six weeks. FIRST is directed by Dean Kamen, creator of the Segway.

CSCE Provides On-Site Professional Courses for Corporate Employees

Employees at Analog Devices in Wilmington and BAE Systems Information and Electronics Warfare Systems (IEWS) in Nashua, N.H., recently completed professional courses conducted on-site by the University's Division of Continuing Studies and Corporate Education (CSCE).

Nineteen Analog workers completed a customized certificate program in engineering skills, the second such group at that company to complete the program. Many of the graduates are continuing their education through an on-site associate's degree in engineering technology offered by CSCE.

At BAE Systems, 14 employees received certificates in information technology with a focus on software release engineering, and eight others participated in the two-year program. As a result, 19 employees have been reclassified into new job titles.

CSCE Dean Jacqueline Moloney says, "We're celebrating a new way of building corporate partnerships."

Nineteen employees from Analog Devices graduated this year from a customized certificate program provided by the Division of Continuing Studies and Corporate Education (CSCE). Celebrating their achievements at a graduation luncheon were, from left, Mark Norton, vice president of Human Resources, Analog; Dean Jacqueline Moloney, CSCE; Virginia Hehn, director of Human Resources, Analog; Catherine Kendrick, director of Corporate and Distance Marketing Development, CSCE; and Joanne Talty, on-site project manager, CSCE.

The Mark A. Saab Advanced Polymers Physical and Rheological Properties Testing Laboratory in plastics engineering was officially opened with the help of, from left, Prof. Robert Malloy, chair, Plastics Engineering Department; Mark Saab, president, Advanced Polymers, Inc.; Dean John Ting of the Francis College of Engineering, and Provost John Wooding.

Day of Dedications Honors Major Gifts to Engineering

Three major gifts to departments in the Francis College of Engineering gave occasion for celebration at the spring meeting of college and departmental industrial advisory boards.

Mark A. Saab, president of Advanced Polymers, Inc., in Salem, N. H., and a 1981 UMass Lowell graduate in plastics engineering, donated more than $120,000 toward the renovation of a laboratory. The new Advanced Polymers Physical and Rheological Properties Testing Laboratory is a teaching and research facility dedicated to polymer property evaluation.

Advanced Polymers produces innovative products, including ultra-thin tubing, catheters and angioplasty balloons.

Stuart Kapp, sales manager of Leistritz Corporation, was recognized for the donation of a new extrusion machine worth $180,000. The machine replaces one the Plastics Engineering Department had purchased 20 years ago. The company has placed 27 such machines in North American Universities. UMass Lowell's is the only gift.

Leistritz, an international equipment manufacturer, produces high-end extrusion processing equipment. The company hires many UMass Lowell graduates.

Rick Pierro, a 1983 M.S. graduate in chemical engineering, is president and co-founder of Superior Controls, Inc. The company funded a new computer laboratory in the Chemical and Nuclear Engineering Department that serves undergraduate and graduate students. The gift is unusual in also providing an annual donation for student support and continual lab upgrades.

Superior Controls designs custom automated control and information systems for the chemical engineering industry.

Campus - People

Retired Professor Publishes First Novel

Linda Kistler, a professor emerita who retired in 2000 from the College of Management, has published her first novel, a book that she began in 1988 and worked on for parts of 13 years. *Cause for Concern*, based on girlhood memories of toxic waste dumped in an eastern Pennsylvania university town, was rejected by scores of agents before Kistler decided to publish it herself. It's available on-line through Amazon and other outlets.

Their Responsibility Is the 'Care and Feeding' of the Laboratories

It's a rare issue of the *UMass Lowell Magazine* that doesn't include one or more stories about the University's laboratories.

But, what of the care and feeding of these labs? Who stocks them and maintains them and keeps them going?

The answer is that this work is done by a number of hard-working employees who usually, but not necessarily, go by the title "professional technician."

Three examples of these workers are, in alphabetical order, Glen Bousquet, Jim Hall and Gary Howe. They serve different departments but all have many things in common: they all have advanced degrees, all supply and maintain the laboratories, all support students and faculty alike, and all have work schedules that vary from day to day depending on what's needed.

Bousquet, director of the labs in the Mechanical Engineering Department, earned both his mechanical engineering degrees (B.S '90. M.S. '95) at Lowell and has worked for the University for 14 years.

Bousquet is responsible for more than a dozen graduate and undergraduate labs, for which he orders, maintains and repairs equipment. In addition, he also designs

experiments, guides and instructs students in their assignments, and helps those doing research.

"There's no such thing as a daily schedule," he says. "You may come in expecting to take care of two or three things and you can't get to any of them. Every day is different. But that's what makes it nice. It's always different."

Jim Hall came to the Lowell Chemistry Department in 1988 after teaching and supervising the chemistry labs at Tufts University for 15 years. He earned his bachelor's degree in chemistry at Tufts and his master's at Northeastern.

Although his title is Professional Technician, Hall says he considers himself to be the freshman lab coordinator. This entails planning schedules, choosing experiments, ordering and setting up the chemicals, meeting with teaching assistants who teach the labs, and preparing notes on how to grade the labs.

Glen Bousquet

Gary Howe

His workday extends from 8:30 a.m. until "whenever the last kids finish their lab work — hopefully by 5:30, but sometimes it isn't."

Houghton Mifflin has published two lab manuals written by Hall: *Experimental Chemistry* and *Introductory Chemistry*.

Gary Howe says his responsibilities in Civil and Environmental Engineering are "very broad."

He orders lab equipment, handles all procurement for the department, does Web design, controls reader-card access to all doors, maintains five labs, and assists with research.

"I work with a lot of graduate students, but not one-on-one. I don't want to hold their hands," he says. "I just steer them in the right direction."

Howe earned his bachelor's degree in electrical engineering at UMass Lowell in 1992 and his master's four years later. Before joining the University in 1995, he had held a co-op job with NYNEX in Manchester, N.H., and worked for an electronics equipment company in Burlington.

Jim Hall

The toughest part of the job, he says, is "trying to keep things clean, operational and put away. I try to ensure that everyone works together and that everyone is happy."

Campus - Outlook

New Diversity Group Is More Inclusive Than its Predecessor

The needs of the UMass Lowell ethnic community, for the second time in a year, are being re-addressed to broaden scope and improve.

ALANA, the campus group devoted to the needs of ethnic students, has been broadened and renamed — it is now the Office of Multicultural Affairs (OMA) — while the Center for Diversity and Pluralism, a student-faculty group devoted to diversity, has been effectively phased out.

The Center's policy committee, the Council on Diversity and Pluralism, remains active, under the directorship of Psychology Prof. Anne Mulvey and Dean of Student Life Larry Siegel, and will continue to oversee the interests of diversity on campus.

"Our group is basically ALANA, with a new name and a more inclusive mission," says Brenda Evans, formerly associate director of Student Activities, who is serving as the new director of the OMA. "The focus of ALANA was limited to the needs of ethnic students, while the new Office will address a broad range of ethnic, cultural and sexual needs and preferences."

New Plans and Initiatives Create Promising Prospects for UMass Lowell

With the launching this spring of an ambitious strategic planning process, the progress being made in nanotechnology initiatives, and other encouraging developments, Chancellor William T. Hogan sees a moment with great potential for UMass Lowell.

The 10-year strategic plan, or Transformation Strategy, will guide the transformation of the campus into an institution focused even more sharply on its integrated mission of providing affordable, high quality instruction and assisting in sustainable regional development. The plan is being shaped in the context of realistic expectations for future state support and with keen awareness of the speed at which technology is changing both teaching and learning.

Coinciding with these activities on campus, the Massachusetts Senate has established a new task force charged with developing a comprehensive 10-year strategy to reform public higher education in the Commonwealth. Senate President Robert E. Travaglini appointed Sens. Steven C. Panagiotakos of Lowell and Stanley C. Rosenberg of Amherst to chair the task force.

Sen. Steven C. Panagiotakos

"A college degree and the skills to acquire it are needed now more than ever to meet the demands of a new and changing economy," says Sen. Panagiotakos. "We need a realistic, well thought out 10-year plan with the same commitment that was made for K-12 education over a decade ago."

Chancellor William T. Hogan

Concerning nanotechnology, UMass Lowell is a finalist in a quest for funds from the National Science Foundation (NSF) to establish a nanomanufacturing center, in partnership with Northeastern University and the University of New Hampshire.

In its strategic planning, UMass Lowell will explore approaches to education that incorporate the latest technology and reflect the way people now organize their lives. Lowell will look to fully integrate "day," "evening," and "summer" school, as well as online instruction.

The use of mixed classroom-based and electronically delivered instruction will be expanded. Closely related courses will be combined and offered in streamlined, interdisciplinary, and resource-saving sets. More courses will be provided to and received from other UMass campuses whenever cost effective agreements can be made. Such changes will require significant negotiations with the faculty and, in the case of the new structure for course offerings, require legislation on retention of tuition.

As expressed by the Chancellor, UMass Lowell's ambition is to be recognized within higher education as a model that demonstrates how a public university providing high quality, affordable programs and operating in the respected tradition of land-grant institutions can assist sustainable regional development in a global economy. The practical results of this effort, as Chancellor Hogan has stated, are "more and better jobs, healthier people, and a higher quality environment."

Board of Trustees Names Jack Wilson as President

Dr. Jack M. Wilson, a nationally recognized innovator in higher education and former chief executive officer of UMassOnline, has been named president of the 60,000-student, five-campus University system by the UMass Board of Trustees.

Dr. Jack M. Wilson

Wilson, who had served as interim president, previously was vice president for Academic Affairs of the system. He also is a tenured professor of management at UMass Amherst.

"We look forward to working with President Wilson as UMass Lowell advances to its next stage of development," says Chancellor William T. Hogan. "This is a time of transformation on our campus, with promising

initiatives that will impact sustainable development. In partnership with Dr. Wilson, we will forge ahead with innovative efforts that will yield economic and social benefits for the region and entire state."

A well-known entrepreneur and distance educator, Wilson was a co-founder, president, and chairman of LearnLine Corporation (now Mentergy), a supplier of software systems for corporate training to Fortune 1000 firms.

Wilson formerly was the J. Erik Johnson Distinguished Professor of Physics, Engineering Science, Information Technology, and Management at Rensselaer Polytechnic Institute (RPI), where he also had served as a dean and interim provost.

UMass Lowell Reaccredited and Placed in Highest Review Category

UMass Lowell has been reaccredited by the New England Association of Schools and Colleges (NEASC) and placed on a 10-year review cycle — the longest review period awarded — following the NEASC Commission on Institutions of Higher Education's rigorous evaluation of the campus.

The commission's evaluation report notes that among the campus's "outstanding assets are a clearly defined mission…; a dedicated and talented faculty; an ambitious and loyal student body; and an experienced, committed administrative leadership team."

The commission also noted that "academic programs are of good quality, and programs targeted for support and expansion (e.g., plastics) are doing very well indeed, and positioned for national prominence."

Chancellor William T. Hogan said he was pleased with the outcome of the review and thanked the faculty and staff for their dedication and efforts in making UMass Lowell a first-class university.

The campus will receive an interim review at the five-year point in the 10-year cycle, due in the fall of 2008.

LEARN: Keeping Students Successful and Involved

It was a simple enough idea: bring the classes and faculty to the doorstep of the students, and chances are good that they will come. It had grown out of an exchange between two UMass Lowell leaders — Fine Arts Dean Nancy Kleniewski and Larry Siegel, then director of campus life — three years ago this spring, then taken form officially four months after that.

Today, after the close of its third full year of implementation, the fruits of this idea are both stunning and pretty much inarguable: vastly improved grade-point averages, a rise in earned credits by students, a jump in retention rates.

Siegel, who has shepherded the program through each of its several phases, is unsparing in his praise. It is, he says, "probably the most exciting project I've been involved with in my 18 years at UMass Lowell."

Its acronym is LEARN (for Living Education and Resource Networking); it began, with 60 freshman students and four faculty members, in a renovated space on the sixth floor of Fox Hall in the fall of 2001. Its goals, in its first phase, were basic: to increase faculty-student interaction outside the classroom, bring academics into the residence halls and improve attendance at early-morning freshman classes by making them more accessible.

In pursuit of these aims, four courses were offered — two each in English and philosophy — in a renovated Fox Hall classroom space, only steps from the students' bedrooms, before most students had to leave their dorms for the day.

Phase two, which went into motion a year later in the fall of 2002, widened the pool of students to 84 — all of them, as undeclared liberal arts majors, considered to be at high risk of dropping out — expanded the course offerings, added a number of workshops and other support services and saw the beginnings of a mentoring program.

The results were almost immediate. Of the 84 at-risk freshmen, 79 were back the following fall.

Phase three began last September. It has seen the renovation of Bourgeois Hall — bathrooms, lounges, all student bedrooms refurbished — to accommodate 300 high-risk freshmen.

Phase three also included a partnership with the University's orientation program, and with the Centers for Learning, whose personnel oversee all tutoring and support services.

It's hard to argue with the results. Ninety-five percent of the Phase-three LEARN freshmen — an unprecedented number — returned to UMass Lowell for the spring '04 semester. The average GPA of those in the program was close to10 percent higher than the campus-wide freshman grade; and the number of credits earned per LEARN student was more than 20 percent greater than for the freshman class as a whole.

Phase four, set to kick off this fall, will enhance the mentoring program still further, bring student staff into Bourgeois Hall to lead academic support initiatives, and sponsor motivational workshops by deans, department chairs, and even the University provost.

Teaching Goes Totally Wired

Gerard Dybel, associate professor of physical therapy, has always preferred including multiple media in his lectures.

"I have students with different learning styles, who benefit from information presented in different ways," says Dybel, who teaches courses in physical therapy procedures and business management skills to students in the clinical doctorate program.

A few years ago, he had to load a cart with all the equipment he needed and allow extra time for set-up before and after classes. Not any more.

Extensive upgrades of three lecture halls in Weed Hall show the shape of things to come across campus. New equipment in each hall includes a computer, flat-screen monitor, LCD projector, digital document camera, VCR and DVD. Machinery is mounted in new teaching stations, built by the carpentry shop, and controlled by an Extron MediaLink switcher.

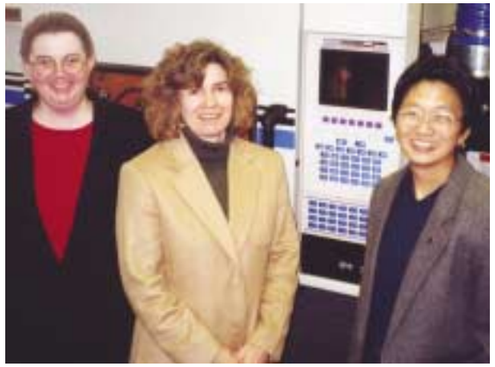
"This will allow faculty to control all of the technology via one easy-to-use interface," says Mike Lucas, coordinator of distance learning for the Center for Field Services and Studies and director of this project.

"All of the upgraded rooms are configured exactly the same, so once faculty are familiar with the equipment in one of the lecture halls, they can easily teach in another one without having to learn any new interface."

As more upgrades are completed (planned for Coburn, Ball and O'Leary), Lucas hopes to use the new configuration as a model, so there is a consistent look and "feel" to the rooms and the technology.

Assoc. Prof. Gerard Dybel, left, physical therapy, and Michael Lucas, coordinator of distance learning for the Center for Field Services and Studies, show the new integrated multi-media equipment set-up for lecture halls, including the new digital document camera (center) and the easy-to-use control panel (lower left).

Campus - Research



Nanomanufacturing research will develop new technologies needed to control properties at the molecular level while producing at high volume and high speed. UMass Lowell faculty leading the effort are, from left, Assoc. Profs. Carol Barry and Joey Mead, plastics engineering, and Prof. Julie Chen, mechanical engineering.

State Makes Commitment to Nanomanufacturing Center

Massachusetts Gov. Mitt Romney has proposed $19.5 million to construct a new building for the UMass Lowell Nanomanufacturing Center.

Meanwhile, the state has promised $5 million in grant matching funds to the new Center in hopes of capturing a major share of the expected $1 trillion in economic activity and two million new jobs worldwide generated by the new technology.

"It is that technology that is going to create jobs," says Sen. Stephen C. Panagiotakos of Lowell, who has been spearheading the effort to see nanomanufacturing established on the former Lawrence Mills site, a 13-acre parcel opposite the new LeLacheur Park. Panagiotakos stresses that manufacturing research is necessary to commercialize the science of the nanoscale, and that UMass Lowell's expertise is second to none.

"UMass Lowell's researchers have the business connections and manufacturing science that will help change the way people work and live in the not-too-distant future," he said.

Plans for a new building at the corner of Aiken and Perkins streets replaces a plan to build the research center inside a former mill building on the property.

"Because the center requires cutting-edge laboratories, a new building would be more suitable. It's more

cost effective to build it new," says Diana Prideaux-Brune, vice chancellor for facilities. She hopes the facility will be built within four years.

Although Massachusetts is currently a leader in nanotechnology research, other states and countries are increasing their investment.

"By getting in early and attracting capital to us, it will enable us to capture a significant portion of the jobs nanomanufacturing will generate," says Frederick P. Sperounis, executive vice chancellor. The UMass Lowell center is unique in New England in focusing its research on high-volume, high-speed processes at the nanoscale: the bridge between laboratory invention and the commercial market.

The team of researchers, working with existing facilities, already has a track record of success. Prof. Julie Chen, of mechanical engineering, and Assoc. Profs. Joey Mead and Carol Barry, of plastics engineering, have been exploring the fundamental science of electrospinning, extrusion and injection molding on the nanoscale, under a grant from the National Science Foundation (NSF). A new proposal to NSF involves collaboration with Northeastern University and the University of New Hampshire.

And sponsored research from industry is expected to grow, as more than 170 Massachusetts companies have products, or show interest in developing products, that use nanotechnology. These companies employ more than 30,000 people and generate revenue in excess of $5 billion, including firms in biotechnology, electronic components, new materials and chemicals, medical devices and pharmaceuticals.

An Apple (Juice) a Day Keeps the Oxidant Away, Says Prof. Shea

Tom Shea, professor of biological sciences, Prof. Gene Rogers of Health and Clinical Sciences and others at the University have been conducting research for several years regarding the ways in which nutritional deficiencies place individuals at risk for age-related decline in brain function — specifically in learning and memory — and actually may lead to the loss of brain cells.

Prof. Tom Shea

"We have demonstrated that the presence of a gene linked to Alzheimer's disease, coupled with nutritional deficiencies,is a disastrous combination," Shea says.

His most recent research project, he says, shows that apple juice can prevent the loss in memory that accompanies both genetic and nutritional deficiencies.

To explain the findings, Shea says that human cells — such as those in the brain — seek to be balanced, meaning that they have an equal number of positive and negative charges. But, even in the course of normal metabolism, they can become unbalanced and, therefore, suffer "oxidative damage" unless antioxidants are present.

Apple juice, like many other fruits and vegetables, contains antioxidants. To determine the degree of effectiveness of apple juice, Shea and his assistants used mice, some normal and others genetically engineered to be at-risk for age-related neurodegeneration.

There were three parts to the test. Some mice in each of the two groups were fed a complete diet; some got one lacking vitamins; and others were given one that lacked vitamins but was supplemented with apple juice.

When introduced into a maze experiment, which requires memory, the normal mice did fine on the complete diet and the one lacking vitamins, and even better when their diet lacked vitamins but included apple juice.

The at-risk mice performed as well as normal mice when fed a complete diet, and when their diet lacked vitamins but included apple juice. When given only the diet lacking vitamins, they did very poorly.

It was clear, then, that the mice performed better in these memory tests when their diet included apple juice.

For humans to enjoy the same benefits, Shea says, they would need to drink two to three eight-ounce servings of juice a day. The antioxidants in the apple product are what make it effective, he says.

"But natural factors are important," he says. "If you try to take pills alone as a supplement, you're missing something. Likewise, if you take twice as much apple juice but reduce your overall dietary intake, you lose the beneficial effect.

"The magic is in the combination. A balanced diet is most important," he says.

Prof. Sue Braunhut and Dr. Samuel Straface, CEO of Triton BioSystems, are interviewed by Janet Wu of WCVB-TV, Channel 5, regarding their development of a new cancer-fighting nanotechnology.

Promising New Technology Fights Breast Cancer

Triton BioSystems in Chelmsford and UMass Lowell Prof. Susan Braunhut of biological sciences have developed a new cancer-fighting nanotechnology that evolved from U.S. Army Research Lab work aimed at facilitating battlefield repairs of military armor.

When Triton Systems CEO Ross Haghighat saw the potential for using the technology to attack cancer tumors, he turned to Dr. Samuel Straface, CEO of spin-off life sciences company Triton BioSystems.

Straface contacted Braunhut, who has been researching breast cancer treatments for 15 years — much of it sponsored by the Army.

The new treatment works by attaching magnetic bioprobes to specific antibodies. The antibodies seek out and attach to the target tumor. When the doctor activates a magnetic field, the bioprobe particles heat up and kill cancer cells, but not any of the surrounding healthy cells.

"It gives us laser-like precision and, so far, has shown no side effects," says Braunhut. "The nanoparticle is benign until activated."

The treatment is also unique in allowing doctors to control precisely the length of treatment.

"The pace at which we've advanced this technology is only made possible through partnership with a private company, which is consistent with our [University's] mission," says Braunhut. "Our goal is to treat breast cancer. We are confronting a disease, metastasized breast cancer, that doesn't have a cure."

U.S. Rep. Marty Meehan helped obtain further funding for the project, specifically a grant to convert defense-related technology to life sciences applications.

Retired UMass Lowell Laborer Sweeps up $294 Million

Geraldine "Gerry" Williams spent 15 years sweeping floors, dusting desks and emptying trash barrels in the classrooms and offices of UMass Lowell South. But, the retired skilled laborer cleaned up in a big way recently when she won the 11-state $294 Million Mega Millions jackpot — the third-highest single-ticket lottery prize in North America.

Williams, 67, who opted to take her winnings in a lump-sum $117.6 million payout after taxes, is the mother of three and grandmother of eight. Her odds of winning were one in 135 million.

"I said, "Oh God, Oh God, let it be,'" Williams told reporters of her stunned reaction after watching the winning numbers being drawn on television.

Williams, who retired from the University in 2002, was remembered by co-workers as someone who not only has worked hard her entire life, but also has a reputation for selflessness and generosity.

"She is a great person," said Dennis Bourque, retired working foreman who was Williams' boss for 15 years. "I just want her to have some quality time for herself now that she can do what she really wants."

Speculation about Williams' identity circulated throughout the region when it was announced that the winner purchased the ticket at a Lowell store. But she did not come forward to claim the prize for seven days. Williams, who supplemented her pension by cleaning houses, met with lawyers and financial advisors prior to collecting her earnings.

The massive windfall thrust the unassuming Williams into the limelight, as she ducked pleas from news organizations from throughout the world requesting interviews, and calls and letters from strangers seeking financial assistance. Although she told reporters at the lottery press conference that she has no plans to modify her lifestyle, the fledgling multi-millionaire acknowledged that she likely will retire her mop and do some traveling.

"I don't know what it is to have money. I don't know what I'd change, but I hope I stay the same," she said.

ROBOTS— and the Minds That Move Them

By Geoffrey Douglas

From Hunting Easter Eggs to Search-and-Rescue—There's No Limit to What These Little Fellas Can Do

The scenarios are almost limitless. A bedridden invalid suddenly able to fetch her own own food and medicines; a wheelchair-bound quadriplegic crossing the street without help; a trapped, unconscious fire victim located remotely in a smoke-blackened high-rise; a cave-hidden terrorist found without risk to human life.

And the more mundane applications. The no-hands vacuum cleaner. The alarm-bell reminder. The 'round-the-clock, unpaid errand-boy. The animated toy that can almost double as a friend.

They are, of course, robots. Computer-programmed robots that "see" and "hear," and walk and (sometimes) talk, and can sense without touching and "know" without being told. They are getting "smarter," more plentiful and ever more versatile — and among their biggest strongholds is the campus of UMass Lowell.

"The progress with robots has been pretty unbelieveable," says Asst. Prof. Holly Yanco, one of two faculty members who teach a two-semester course on robotics. "You take a basic task like picking up a piece of trash. Ten years ago, that would have been a major entry in a [robotics] competition—now you can teach a student how to do that in a week."

And in *two* weeks, with a full class of students, you can manage tasks that go well beyond trash. That's how long it took 10 students in the Robotics I class taught by Asst. Prof. Fred Martin — who teaches the first half of the two-semester course — to design and assemble a series of robots that could compete head-to-head in an egg hunt, with the eggs color-coded and assigned point-values by color. The idea of the contest, won by senior computer science major Michael Bohan, was, says Martin, for the students "to demonstrate their range of knowledge of how robots work by designing them to perform a specific task."

Asst. Prof. Fred Martin of Computer Science, with one of his student's self-designed robot cars.

Martin's half of the year-long UMass Lowell course deals largely, he says, with the "fundamentals" of robotics: sensors, gear trains, and the control panels by which the robots are made to perform tasks. Students, by the end of that first semester, are expected to be capable of designing their own, still relatively primitive, robots (as they did in the case of the egg-hunt), which,

Asst. Prof. Holly Yanco with some of the robots that were designed in her lab.

says Martin, "should possess sensors, a control program and some way of affecting the world."

Yanco's second-semester course, on the other hand, is built around three mobile, pre-built "research-grade robots" — larger, more expensive, and capable of more complex tasks. Students in this course, says Yanco, "might be working on getting their robots across the street, potentially to the library to pick up a book. Or maybe [to help] a paraplegic, who can't get across on his own."

It is at this stage of their learning, both professors say, that students begin to deal seriously with the application of "artificial intelligence" (AI) — or, as Yanco puts it, "having your robot move through the world in some sort of intelligent fashion, hopefully without bumping into walls." AI, in turn, is still one step removed from HRI — Human-Robot Interaction— which, she says, "is where things really begin to get interesting."

HRI, at its more advanced levels, is "where you begin to deal with things like urban search-and-rescue — say, finding victims of an earthquake or a fire. Or infrared imaging, where you're outside somewhere, directing your robot to locate a victim from an image you're reading on a screen. Or putting a CO2 sensor on a robot — to sense whether someone is alive — and sending it in to locate the living victims…"

Although this level of complexity, Yanco says, is mostly the province of graduate students doing lab research, "it's here that computers really begin to show their value. You get to write a program, and see something actually happening in the world, as opposed to just spitting out interest rates."

> "The progress with robots has been pretty unbelieveable." — Asst. Prof. Holly Yanco

Fred Martin puts it another way: "Robotics is a way to widen your sense of the computer's role — there's a lot more going on than just what's there on your desktop."

Martin's career since graduate school has been devoted to what he terms "educational robotics" — the use of robots to "widen our sense of what's possible in the world." As a graduate student at MIT, his master's project was the development of a "programmable brick" the size of a deck of cards through which children, by plugging in sensors, could create mobile robots to perform simple tasks. His doctoral project was a more powerful version of the same brick, this time for use by adults.

"As time goes on," says Martin, "there are going to be more and more ways in which robots affect our daily lives. Already, you can go to Brookstone, and for $200, buy a robot that will vacuum your living-room floor. And that's only the beginning — as computers become more [sophisticated], and robots can be programmed to have an even greater sense of the world, there's almost no limit to what could be done."

Undergraduate Áron Barabás at work on the next-generation wheelchair-robot.

There are three broad areas, says Holly Yanco, in which robots, already, have a major foothold in today's world. The first is toys: "Toys are the way kids usually get introduced to robots in the first place, to all the possibilities of what they can do." Among the original toy robots, she says, was "Furby," the cute, little furry animal with enormous eyes, popular in the late 1990s, who had its own language and could be programmed to sleep and wake up on cue.

Another broad application, she says, has been in the military, where robots have been used — notably in Afghanistan — to locate fugitive terrorists without exposing live soldiers to risk. There are other such uses, she says; the military applications "are only now beginning to be fully realized."

The final area, and perhaps the one with the broadest influence on daily life, says Yanco, is in the home. Especially with the elderly.

"The population is aging. More and more, people are wanting to stay at home rather than be confined to nursing homes — not to mention the expense. Now [with robots], they can have what they need fetched for them, they can have their houses cleaned, their meals prepared; it's even possible [for others] to monitor them from a distance, to make sure they've eaten breakfast or taken their meds. The possibilities are pretty incredible."

A wheelchair robot under development in Asst. Prof. Yanco's lab.

The search-and-rescue robot undergoing a hardware upgrade.

Asst. Prof. Holly Yanco's lab, both robots and humans. The humans, front, from left, Brenden Keyes, Robert Casey and Rachel Mulcrone; rear, from left, Aron Barabas, Philip Thoren, Prof. Yanco, Marbella Duran, Michael Baker and Andrew Chanler

But in the end, as with so much else in life — the more so where technology is involved — the future will belong to the next generation. At the University's Campus Recreation Center on a Saturday last spring, teams of middle-, high-, and elementary-school students from Rhode Island and Massachusetts, some as young as eight, gathered to showcase the range of achievements they had programmed their robots to perform — from dropping colored balls into baskets to sorting recyclables, to negotiating a miniaturized Australian landscape.

"It was the kids who first took on computers," says Yanco. "They grew up with them, they adopted them as their own. And they'll do the same with robotics. In the end, for all we do at this level, the real progress is going to come from the kids."

Faculty members who have led the Computer Science Department during its first 25 years have included, from left, Giampiero Pecelli, Jim Canning, Bill Moloney and Tom Costello.

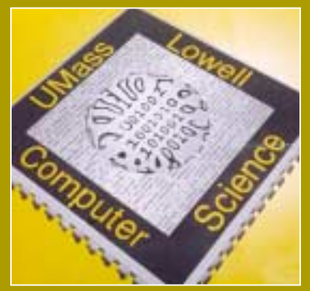
THEY'VE COME A LONG WAY FROM PUNCH CARDS

The Computer Science Department Celebrates Its 25th Anniversary

By Jack McDonough

There were a lot of "great teachers" in the department, says David Shulman, but the one he remembers in particular is the late Charlie Steele.

It was 1981 when, as Shulman recalls, "the Computer Science Department was fresh and new," and Steele was his advisor and professor in a number of courses.



Exhibiting the temerity characteristic of youth, Shulman told Steele that he was doing well in his studies and thought perhaps it might be a good idea to take on another course as an added challenge.

Shulman says Steele seized on this suggestion as an opportunity to change his entire schedule, make him "one of the first guinea pigs" in an honors program and enroll him in a graduate level combinatorics math class that he, himself, taught one night a week for three hours.

"It was the toughest course I ever had in my life," Shulman recalls. "Charlie would spend the three hours writing on the blackboard, his pants covered in chalk.

"But he insisted that it was 'good for me,' sort of like taking bad-tasting medicine. It would make me 'stronger' some day. Well, he was right."

In 1981, the department was, indeed, "fresh and new" as Shulman says, having been formed two years earlier with a handful of faculty drawn from other departments, and a modest inventory of equipment.

Now, after years of moving, changing and expanding, Computer Science is celebrating its 25th anniversary.

Prof. Tom Costello, who heads the department today, says that around the mid 1970s the Mathematics Department had begun offering computer courses other than languages and syntax.

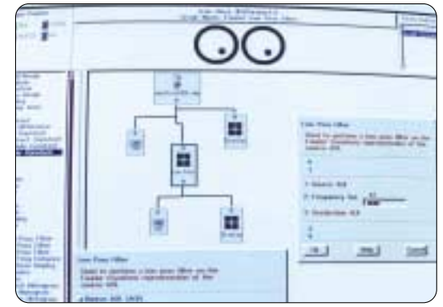
"Electrical Engineering had been offering language and syntax courses for a while, too, and student interest was growing. At that point, I suggested that the school should think seriously about forming a computer science department."

A committee — chaired by Provost Leon Beghian and made up of representatives of business and industry — was formed to recommend a starting curriculum. Steele was the first full-time faculty member appointed. He was joined by Costello, Bill Moloney and Shimshon Berkovitz, all of mathematics; Dave Korff of physics; Win Fuller of management; and Stu Smith of music.

Berkovitz was the first department head. He was followed in that post by Costello, Moloney, Giampiero Pecelli and Jim Canning.

"I think it's fair to say that, as with anything that's new and growing, there were some bumps in the road," Costello says, "but those bumps were ironed out over time."

One of those early "bumps," in Pecelli's estimation, was that first curriculum, which, he says, "was, to be charitable, inappropriate for a CS department. In any event, that was one of the first problems to be solved. By early 1983, we had changed the curriculum to lay the foundation, with some necessary evolution since then, for the core that is now in place."



Jim Canning says many alumni will remember this as the "Eyes Project," an exercise in visual programming.

Equipment at the outset included punched cards, paper printout DECwriter terminals connected to Control Data Cyber computers and, a little later, DEC Vax with video display terminals.

The department's first offices and classrooms were in "modest" spaces on the second and third floors of Olsen Hall. In the fall of 1982, the department moved to Pinanski where it remained until 1985 when the University leased space in the Wannalancit Mills building.

"It was great space," says Costello. We went from 8,000-square feet in Pinanski to 37,000 in Wannalancit."

And they needed the room. By 1986 there were 800 computer science majors — 600 undergraduates and 200 graduate students (by then the department also had added a doctoral program) — and the faculty had nearly tripled, to about 18.

At Wannalancit, says Costello, "we had more general support labs for students and more focused research labs, which also supported some of the teaching faculty."

Pecelli , who came to Lowell in 1981 and taught both computer science and mathematics, remembers well those early days when resources were slim.

"The facilities were next to non-existent. I remember a meeting in 1982 when Leon Beghian announced a major equipment donation from Data General. He said it would set us up for the next 10 years.

"I was next to Dean Joseph Salamone and I quipped that if we were

Ted Ryan, left, Jim Canning and Tom Costello enjoying the buffet at a department Christmas party in Pinanski in 1985.

Rich Miner '86, '89, '97 and Rob Silvers '91 (on the screen) work on a project using the technology of the day.

doing our job right, we'd need another major upgrade in 18 months. He looked aghast.

"I was wrong by six months. Within a year, our needs — and, fortunately, our resources — had outstripped anything available at that moment."

Work with rudimentary robots — basic Heathkit models — also began in the early '80s.

It came at a time when industry needed to develop more cooperation among work groups in design and manufacturing processes.

"Our students traveled all over the country and discovered they could compete with students from premier schools and with people in industry," Costello says.

Bill Moloney, who, in 1986, succeeded Costello as department head, had joined the Mathematics Department in 1970. He taught computer-related courses and was particularly

"Our students traveled all over the country and discovered they could compete with students from premier schools and with people in industry." — Prof. Tom Costello

It was also at that time that the department began working with Pat Krolak's Center for Productivity Enhancement.

Costello describes it as "an outgrowth of some things going on in computer science. It was an attempt to find ways for students to work with students and faculty in other disciplines . . . to work on real computer-oriented activities rather than traditional academic problems.

"A lot of these projects were funded by industry and it was one of the first multi-disciplinary partnerships within the University."

Bill Moloney and department secretary Liz Fortin at a Computer Science meeting.

interested in developing computer courses for business majors.

"In the '70s it became clear that computers would become big in academia. A number of us were interested in them and thought that creating a separate computer department made sense. Math was the biggest department in those days and we thought it would be awkward to create a computer science program within math."

So it was that computer science became a separate department within the College of Arts and Sciences.

"Shim Berkovitz, the first department head, left in 1982 and Tom (Costello) succeeded him. Tom was energetic and had some good ideas."

A primary goal at that time was to acquire some good equipment.

"We wanted to get a general purpose computer system," says Moloney. "Digital made a lot of equipment available to us. They either sold it to us at a discount or just gave it to us.

"Ed DeCastro (EE '60) was CEO of Data General then and he was very supportive, too, in providing us with equipment.

"And Data General was very helpful. We did some diagnostic software work for them and they, in turn, allowed their employees to teach and help us to use their equipment.

"Over the years, Data General has taken many of our students as interns and most of them end up working there full-time."

The department received accreditation in 1989. That was the good news. The bad news was that the economy began to sag, enrollment went down and a lot of faculty left for jobs in industry.

Giam Pecelli was elected department head in 1989 and, says Moloney, given the conditions, had a hard time.

Pecelli agrees.

"I found myself watching over — with no capacity to alter the course – the effects of the end of the 'Massachusetts Miracle' on our department. I had hoped for stability or a bit of expansion. But I ended up with no departmental funds for equipment and supplies, fewer than half of the TAs and half the secretarial staff."

But the down times finally ended.

In 1991, the leadership mantle was passed to Jim Canning and, fortunately for him, the economy began to recover.

"They all generally appreciate one another and work cooperatively. That's what has made this place pretty nice over the years. I wouldn't trade it for anything." — Bill Moloney

Canning, a graduate of Virginia Tech, had been recruited by Tom Costello and he joined the faculty in 1985 — his "first and only job," he says.

He taught undergraduate computer architecture and graduate software engineering.

"The early days were exciting, certainly for me as a young faculty member. In those days, just prior to the Internet, students came to the University to work. It was like going to camp. There was lots of action.

"Labs and classes were full and many times we stayed up all night working on projects.

"The department was growing and a lot of internal policy was being made. We were making decisions from moment to moment.

"The excitement today seems quite similar. We have all these new energized faculty people on board and the department is quite healthy emotionally. We're well positioned to help the region because there are so many high-tech companies in the area.

"But a big difference now is that we have CS alumni — about 2,000, mostly in the region. We didn't have those in the '80s. I can't go to a company now without bumping into an alum."

Canning says that, as department head, he did "a little outreach" with alumni and they started writing "warm notes" back to the school, some with checks enclosed.

"I believe the alumni have a fondness for the department," he says.

Bill Moloney's feelings about the department may explain this attachment on the part of its graduates.

"You probably won't find a more cohesive group of people," Moloney says. "They all generally appreciate one another and work cooperatively. That's what has made this place pretty nice over the years. I wouldn't trade it for anything."

Steele Was Right. The Hard Work Paid Off.

Charlie Steele was right.

When he bombarded undergraduate David Shulman with a graduate course in math and piled on other class work, he told the young student that it would be good for him.

And look at the result.

Dave Shulman says Charlie Steele's course in combinatorics mathematics was the toughest one he ever took in his life.

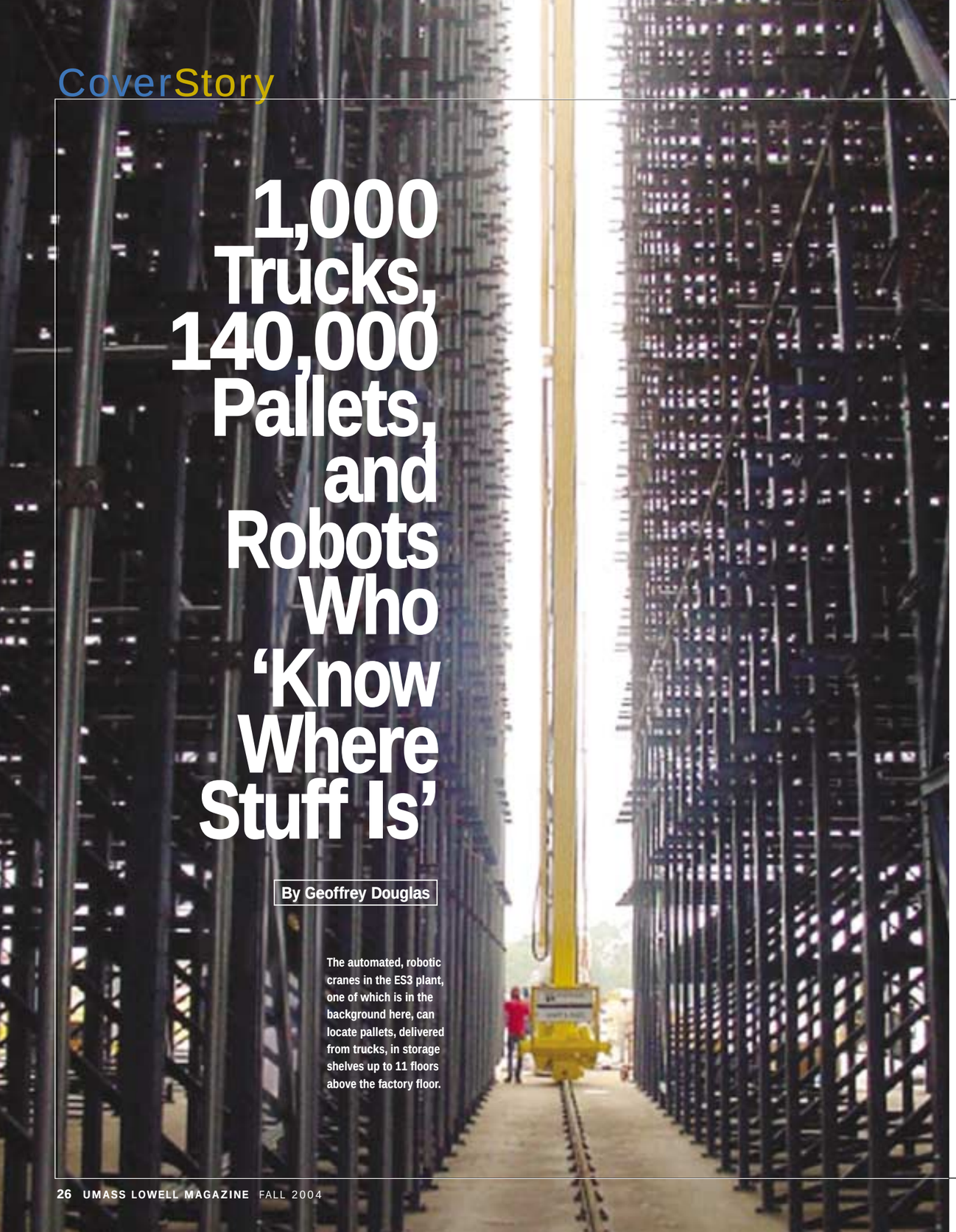
After graduating with a 3.96 GPA in Computer Science and Mathematics, Shulman became director of software development at North East Research Associates in Woburn before going on to Microsoft Corporaton where he held a number of key management positions over a 13-year period. In 2002, he founded and now serves as president of Sargon Technology, Inc., a technical consulting service in Bellevue, Wash.

In 1999, he created the David E. Shulman Fund for Excellence in Computer Science, which supports a scholarship program and lecture series at UMass Lowell. He also created the Computer Science Association of Computing Machinery Student Chapter Fund.

Shulman was presented with the Francis Cabot Lowell Arts and Sciences Alumni Award in 1999.

1,000 Trucks, 140,000 Pallets, and Robots Who 'Know Where Stuff Is'

By Geoffrey Douglas



The automated, robotic cranes in the ES3 plant, one of which is in the background here, can locate pallets, delivered from trucks, in storage shelves up to 11 floors above the factory floor.

Picture a warehouse, a huge warehouse, larger than any warehouse you've ever worked in or walked through. Now picture a truck delivering a load: the arrival at the loading bay, the unloading, the gloved men piling crates onto pallets, the forklift driver bearing the pallets to this or that row or section, stacking them — six, eight or ten feet high — then returning for another load. Thirty or 40 or 50 times a day.

ES3 President and UMass Lowell alumnus Ron Wright

That was the old way. Now picture the new one. The truck arrives; men on lift trucks unload it, placing the pallets on an automated "induction spur," from which they pass to an enormous robotic crane, 11 stories tall, which transports them to storage positions up to 100 feet high, then logs them by contents, source and date. The process is repeated — by many such cranes, coming and going, from 2,000 trucks a week. Between delivery shipments, as pallets are shipped out or stored away, they are constantly reshuffled, then re-logged, for maximum efficiency. And again, no men, no forklifts — only 15 11-story, robotic cranes on rails, pre-programmed to load, unload, shuffle and sort. Cranes with brains, you could say.

This is the way of things at the ES3 warehouse in Erie, Pennsylvania. With 450,000 square feet of floor-space housing the inventories of 20-odd U.S. food manufacturers in storage shelves as high as 110 feet above the floor, it is the largest food distribution center in the world. It is also, says the man in charge of it, a model for the 21st century.

"This is an automated facility on an unprecedented scale," says Ron Wright (BS, Lowell Tech, '72), president of ES3 and of its sister company, C&S Wholesale Grocers. "It is a storage and retrieval system that not only stores and delivers, but can track its inventory. It allows efficiencies of time and scale that were only dreamed of before."

The ES3 warehouse, says Wright, features fully-integrated lift trucks, computers and scanners controlled by wireless technology. The cranes themselves move at 600 feet per minute and are guided by laser technology: "They have algorithms designed into their systems, so they can actually 'know' where stuff is."

They "know," for instance, the difference between the slow- and fast-movers (tabasco sauce, say, versus tomatoes or paper towels) and are "smart" enough to store the towels nearer the front. And during the down-time between truck deliveries, they are programmed to "shuffle" inventories for optimum efficiency.

Between the size of the ES3 warehouse and the efficiencies made possible by the cranes, it becomes possible, says Wright, for ES3's customers — Heinz, Campbell's, ConAgra, DelMonte and 20 or so other U.S. food manufacturers — to both reduce their inventories significantly and, at the same time, drastically lower the lag-time (or "lead-time") between order and delivery.

The company refers to this as the RBCW (Really Big Consolidation Warehouse) concept. The RBCW — as described in ES3's on-line description — "is 20 to 30 times the size of the traditional distribution center," enabling multiple manufacturers to

"This is an automated facility on an unprecedented scale." — Ron Wright

The ES3 plant, with a floor area of 450,000 square feet and a vertical storage height of more than 100 feet, is the largest food distribution center in the world.

store their inventories there. With the costs of storage being shared among tenants, the costs of receiving and bookkeeping defrayed by the "intelligence" of the cranes, and ES3 truckers under contract to deliver to customers within 24 hours after the order is received, the advantages of the RBCW seem just about impossible to dispute.

All of which explains why the company, only three years down the road from its inception, is about to add a second warehouse, with another 300,000 square feet of space, and 10 more robot-cranes to go with the 15 it has now.

The 15 cranes in the ES3 plant were designed by HK Systems in Minnesota, at a cost of $1 million each.

"We've got 2,000 trucks coming in and out every week," says Ron Wright. "And we're full, we're at capacity. With the new space we're getting, it'll be up to 3,000 a week. There's no saying where we go from there. But this is definitely the way of the future."

It's a future he seems to have been born for. Since he was a teenager, the food business is the only vocation he has known.

As a major in business administration at Lowell Tech in the early seventies, he worked part-time for Star Markets — as a warehouse worker, then cashier — to help meet tuition costs. It was there, in his junior year at the Watertown Star Market, that he met another student, a part-time meat-wrapper named Ellen. The two were married a year later; they have a son and two daughters, and have been together 32 years.

Delivered pallets, once unloaded from their trucks, are placed on automated "induction spurs," from where they are picked up by the robotic cranes, which then transport them to their storage positions and log them by contents, source and date.

He stayed with Star Markets 10 more years, rising into and through the middle-management ranks, before leaving in 1983 to join C&S as a buyer. Twelve years after that, in 1995, he was named executive vice president and chief operating officer; he was made president in 1998.

It was a big job — and remains so. C&S Wholesale Grocers is the second-largest food wholesaler in the U.S., serving as a source for 4,000 independents, supermarket chains, mass marketers and wholesale clubs from Maine to the west coast and Hawaii. Based in Brattleboro, Vt., it is the eighth-largest privately-held company in the nation, with 40 warehouses in nine states, 10,000 employees and yearly revenues of more than $11 billion.

The company is 75 years old, and is owned today by the grandson of the man who founded it. But perhaps never in that time has its owner, Rick Cohen, stretched himself more ambitiously than he did three years ago, when he conceived and founded ES3. Built according to his vision, with a $110-million warehouse in Pennsylvania and corporate offices in Keene, N.H., less than 30 minutes from those of C&S, it was designed to serve all classes of trade, wholesale and retail as well as drug clubs and mass merchants — by "facilitating the collaboration of manufacturers and retailers" and "synchronizing supply and demand."

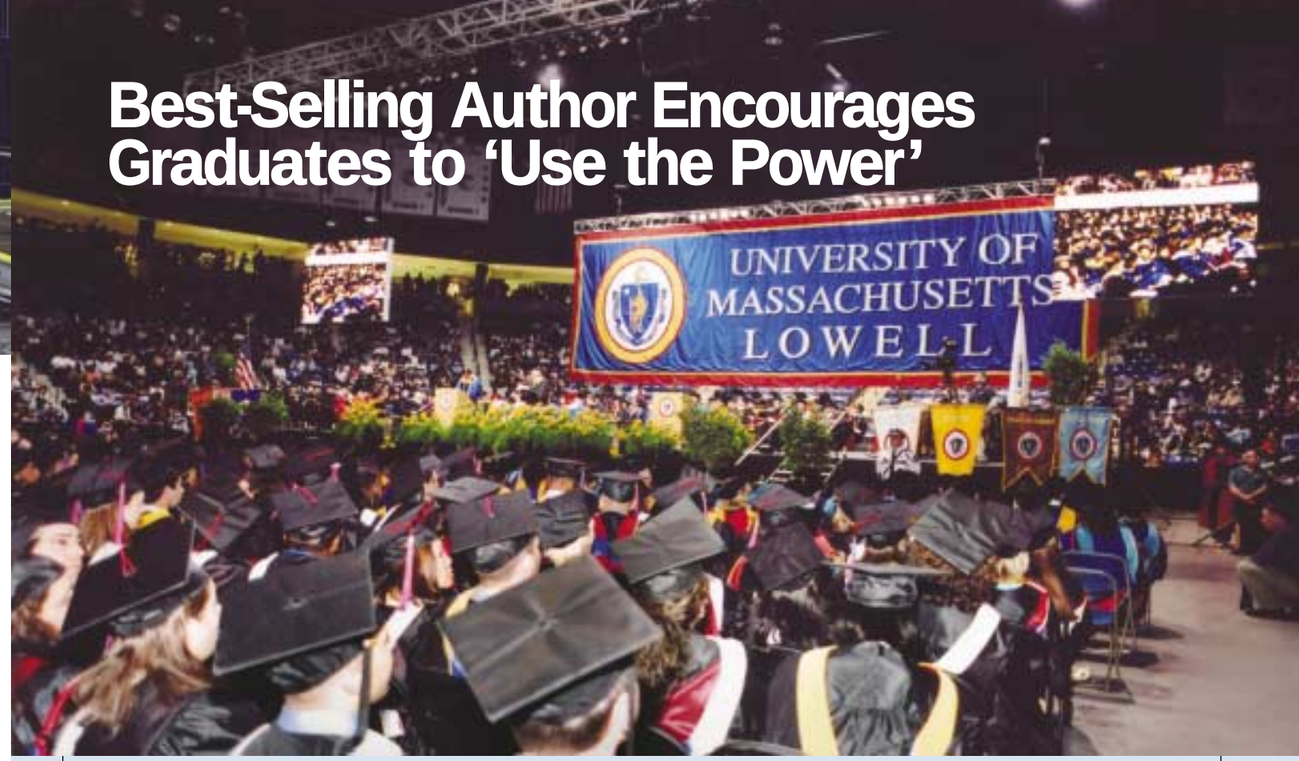
If its growth is any indication, it has succeeded in both these goals. And it has done so with Ron Wright, its president since day one — it was Wright who recruited most of its 45 managers, who in turn hired the roughly 150 others it now employs — in charge every step of the way.

How he has managed this, in tandem with his duties as head man at C&S, would be a mystery to most. He divides his time, he says, more or less equally between the two companies, with an office at each. He has benefitted, of course, from the proximity of the two offices; and from their complementary roles. Also, he adds: from the aid and confidence of "a great boss, who is also a partner and friend."

Beyond all this, he says: "I've been able to hire some great people, and to hold them accountable. Great people are hard to find, but if you can find them, and keep them, you can succeed at least most of the time."

> "The robot-cranes that enable all this are guided by lasers and driven by computers." — Ron Wright

Best-Selling Author Encourages Graduates to 'Use the Power'



Best-selling author Barbara Ehrenreich encouraged UMass Lowell graduates to "use the power that diploma opens up to you" by working to make higher education a right for all.

"You are at this moment walking through a door that was closed to many of your parents and almost certainly closed to your grandparents," she said. "You can walk on through and let that door slam shut behind you. Or you can resolve to tear that door off its hinges and open the way to all who come behind you."

"Use the power that diploma opens up to you by working to make higher education a right for all"
—Barbara Ehrenreich

With sales approaching the one-million mark, Ehrenreich's last book, *Nickel and Dimed: On (Not) Getting By in America*, has appeared on *The New York Times* best-seller list for more than a year. She is the author of numerous critically lauded books and her articles regularly appear in publications such as *Harper's*, *The Atlantic Monthly* and *The New York Times Magazine*.

Chancellor William T. Hogan and President Jack M. Wilson conferred 1,800 degrees — including a record number of 95 doctorates — at the June commencement at the Tsongas Arena in downtown Lowell.

For the first time in University history, there were two valedictorians — both of whom had a perfect 4.0 GPA — Megan Williams and Nihal Patel. There also was the largest number of undergraduates who took their courses on-line — 30 — since the internet program began through Continuing Studies and Corporate Education in 1996.

Middlesex County Sheriff James DiPaola called the commencement to order and State Rep. Colleen Garry offered greetings on behalf of the Legislature.

In addition to delivering the commencement speech, Ehrenreich received an honorary degree, along with Charles H. Hoff, a venture capitalist and chairman of the Hoff Foundation; and Victor W. Sidel, former president of the American Public health Association and founder of Physicians for Social Responsibility.

Dr. Susan Pasquale, chair of the Alumni Relations Council, presented the Distinguished Alumni Award to Frank M. Spinola '66, chemical engineering, former president and CEO of INDSPEC Chemical Corp.

The University also recognized individual graduates for academic excellence and service, including Chancellor's Medalists for Distinguished Academic Achievement (students with the highest GPAs in each college): Nihal Patel, College of Arts and Sciences, Division of Science and Mathematics; Megan Williams, College of Arts and Sciences, Division of Humanities and Social Sciences; Tracy VanZandt, College of Engineering; Tracey Hanson, School of Health and Environment; and Anna Larina, College of Management. Patel and Williams also received Trustees Keys for attaining 4.0 averages — an award that had been granted only 11 times previously.

The Honorable James DiPaola, sheriff of Middlesex County, called the ceremonies to order.

The National Anthem was sung by Jaclyn Soep, who graduated magna cum laude with a bachelor of music degree in music studies.

State Rep. Colleen Garry ’85 delivered congratulations and greetings on behalf of the Legislature.

For the first time in University history, there were two valedictorians, Megan Williams and Nihal Patel, both of whom had perfect 4.0 GPAs.

Celebrating at the pre-commencement breakfast were, from left, Provost John Wooding, President Jack M. Wilson, Jane Levy, Chancellor William T. Hogan and Executive Vice Chancellor Fred Sperounis.

Chancellor William T. Hogan, left, and Provost John Wooding, right, congratulate Distinguished Alumnus Frank Spinola, 66, and his wife, Mary Jo ’66.

Honorary degree recipients, from left, Victor W. Sidel, Barbara Ehrenreich and Charles H. Hoff

From left, Chancellor William T. Hogan, President Jack M. Wilson and honorary degree recipient Charles H. Hoff ’66 listen intently to the speakers.

Best-selling Author Barbara Ehrenreich encourages graduates to help make higher education accessible for all, in a stirring commencement address.

Several graduates used their mortarboards to express their feelings to the thousands of well-wishers gathered in the Tsongas Arena.

Graduates were exuberant as they prepared to receive their diplomas after years of hard work and studies.

Chancellor William T. Hogan, left, and Athletic Director Dana Skinner, right, present Uri Grunwald, a business administration management information systems major and a River Hawks basketball player, with the University Athletic Scholarship Award for attaining the highest GPA among varsity athletes.

Chancellor William T. Hogan, left, congratulates Class President Robert Blatt, who delivered his final speech to his classmates.

The Face of Philanthropy

‘Just a Couple of Kids From Massachusetts’— Carving Two Lives, and a Fortune, Out of $938 and the Kitchen Sink

By Geoffrey Douglas

They met on a bus, from the Lowell campus to Worcester, in the spring of 1941. Both were on their way home for the weekend — she from Lowell State Teachers’ College, he from Lowell Textile. On their first date, a week later, he proposed walking to the movies to save on bus fare. “I knew right then,” she remembers, “that this was a boy without an extra nickel to his name.”

They were married three years later, sixty years ago this summer. Since then, in addition to their other generosities, they have endowed five UMass Lowell scholarships, given thousands more for needed projects, and — most recently — pledged half a million dollars to be used by the Chancellor for campus priorities.

It all began, says Charlie Puliafico, with a little company he called Webster Chemical, run out of the back room of his mother-in-law’s old variety store — “with a baby and a couple rooms of furniture, and a $938 stake.” It was 1947. His first product was a floor cleaner; his lab was the kitchen of their home.

He sold his stake in Webster Chemical nine years later, for $32,000. With that he launched a second company, Webco, a manufacturer of specialty chemicals, out of a rented space not far from his home. It is still there today — in Dudley, Mass. — run now by his family, and bills over $20 million a year.

He had earned his BA in textile chemistry from Lowell Textile in 1944, an education he says today was “the foundation of my success.” His wife, Jackie, who majored in music education, had earned her bachelor’s two years before that — in large part due to an act of kindness by her teachers.

“My father died in August, just before my senior year was to start. I was going to transfer to Worcester State, to be nearer to Webster” — her hometown, both then and today —”because I couldn’t afford [the boarding costs at] Lowell.

Charlie and Jackie Puliafico

My teachers, to keep me in school, got together and paid for my music texts, which were a big expense at the time.”

She stayed at Lowell State as a result, and graduated the following June. “And I’ve never forgotten,” says Jackie Puliafico. “I said to Charlie at the time, ‘If we’re ever able financially, we’ve got to see what we can do for Lowell.’ ”

It’s a promise they’ve made good on many times over, though their generosity hasn’t been limited to UMass Lowell. In addition to the scholarship aid they’ve provided — to benefit student-athletes, as well as students of nursing, music, chemistry and chemical engineering — the Puliaficos have given their time to almost too many causes to name. Charlie, for his part, was president of the Webster-Dudley Chamber of Commerce and of the board of directors at Hubbard Regional Hospital in Webster,

“I said to Charlie at the time, ‘If we’re ever able financially, we’ve got to see what we can do for Lowell.’ ”
— Jackie Puliafico

as well as chairman of the Massachusetts Small Business Advisory Council and a member of the Board of Overseers at Old Sturbridge Village, a nonprofit that provides educational opportunities for kids.

As for Jackie, although she retired officially years ago, it’s been hard for those who know her to see much difference. After more than 20 years directing the music programs in Webster’s schools, as well as the local high school choir, she has led a retirement that has included endless field trips, music classes, musical productions and fund raisers of every sort. Not long ago, through ad sales and concert tickets, she raised $40,000 to renovate the Webster auditorium — fresh-painted walls, new window dressings, velvet drapes — which hadn’t had an upgrade, she says, “since sometime in the 1920s.” Until recently, she was director of Webster’s St. Joseph’s Basilica Choir, which—among other things — performed under her direction for the Pope and 50,000 others in St. Peter’s Square in Rome. For close to 20 years now, the Bartlett High School auditorium has been known officially as the “Jacqueline D. Puliafico Theatre.”

Charlie meanwhile, has taken a back seat at Webco — whose top three spots are now held by his son, grandson and son-in-law — although a good part of his energies remain devoted to channeling a portion of its profits toward the people and projects he holds dear. In a recent agreement he came to with the company, for instance, he agreed to advance it the purchase price of a machine to manufacture 15-gallon drums; the company, in return, will pay him two dollars for every drum that comes off that machine. It’s a good deal for everyone—the company conserves capital, while Charlie assures a good return on his money — but the best part, says Charlie, is what he plans to do with the cash:

“The plant will produce around 70,000 barrels a year, at two bucks a barrel — I’m going to have a lot of fun giving that money away.”

He and Jackie, already, have given away a quite a lot. Since first being recruited 12 years ago, on the occasion of a UMass Lowell football game in Dudley, to raise money at athletic events, they have contributed at charity golf tournaments, given $25,000 a year for several years toward scholarships, and now — with their most recent, by far most generous pledge — have agreed to donate $500,000, to fund priority projects on campus as determined by the Chancellor.

Two years ago, at the UMass Lowell 2002 commencement, they were presented jointly with the University’s Distinguished Alumni Award.

“We’re just a couple of kids from Massachusetts who met on a bus,” Charlie says with a chuckle. “Our first date was a movie — and I could barely pay for that. But life since then has been very, very good.”

The Puliaficos, with Chancellor William T. Hogan, at the 2002 Commencement ceremony at which they were honored.

NHL Eyes UMass Lowell Star

By Bob Ellis

Ben Walter is allowed to dream.

The Boston Bruins called the UMass Lowell Junior hockey center's name during the 5th round of the National Hockey League's draft of amateur players.

Ben Walter

It was not the first time he'd thought about the prospects.

It is something that had been rumbling around in the young man's mind probably from the time he first laced up a pair of ice skates. "Of course you always dream and hope, but you try not to think about it," said Walter in a radio interview during his outstanding sophomore season at the University.

And on a hot summer Sunday afternoon his name had been called.

"I had talked to Boston and had a good interview with them. When they called my name it was really exciting," said Walter.

He was in Raleigh, N.C. watching the draft when his name was announced from the podium. A Bruins cap was placed on his head and he was given a team sweater to try on.

The call came halfway through the league draft, the midpoint in the nine rounds, a bit earlier than the experts had projected. "People told me I could go in the middle rounds," said Walter. "I'm just happy to be selected. It didn't matter (what round.)"

UMass Lowell Hockey Coach Blaise MacDonald was not surprised. He had talked to various NHL teams about his player. "It's a testimony to Ben. He's a tremendous kid, works really hard, is very respectful, has a high level of integrity and a tremendous passion for the game," said MacDonald. "He loves his teammates, he goes about his business in a very professional manner for a young man."

The River Hawk center was an integral part of the growth in the University's hockey program during the 2003-04 season. Walter tied for the team lead in goals with 18, game-winning goals with 3, and was tied for second with 34 points. He was among the nation's top scorers when his team was on the power play.

"I had talked to Boston and had a good interview with them. When they called my name it was really exciting."
— Ben Walter

But MacDonald points out that Walter cannot be summarized by a list of numbers or accomplishments. "It's the mental side, the ability to think the game, to see the ice, to have awareness, that's hard to teach, if it can be taught at all. You must have good instincts to play the game and that's his strongest suit as a player."

Walter has "good blood lines." His father, Ryan Walter, was a first round selection and played in the National Hockey League, with three teams, for 15 seasons, sharing a Stanley Cup as a member of the game's fabled Montreal Canadiens in 1986.

"Nothing has been easy for him," his father told *espn.com*. "He's had to work his crackers off every day."

The younger Walter remembers watching his father play and practice with the Canadiens, remembers the atmosphere in the team's locker room and remembers taking shots on Montreal goaltender Patrick Roy before practice. And Walter says it was there in that locker room that he developed his passion for the game.

Although drafted, Walter has no plans to sign a professional contract just yet. He plans to return to UMass Lowell for his junior year. His goals are simple and include another dream — "to win a (collegiate) national championship."

Ben Walter

An Era Ends with Inbar's Graduation

Elad Inbar

The Elad Inbar era at UMass Lowell is over. New frontiers await the young man who was at the epicenter of the University's basketball resurgence.

Inbar graduated in June 2004, leaving the University after a myriad of honors, championships, big shots and memorable moments. He is the school's all-time leading scorer with 2,099 points and was named the 2004 Lester Cushing Award winner as the University's outstanding male athlete.

Inbar was named to various all-star and all-tournament teams, grabbed various Northeast-10 Conference honors, was a two-time All-America, and topped off his college career by being named the 2004 NCAA Division II Player of The Year.

The 6-foot-7 forward from Kiryat Haim, Israel, takes all of this rather calmly, preferring to think in terms of the River Hawk basketball team as a whole. "It's not one thing or one shot (that I remember)," says Inbar, "but the fact that we had a winning team for four years. [Teammate] Uri Grunwald and I accomplished 100 wins, it's incredible to me."

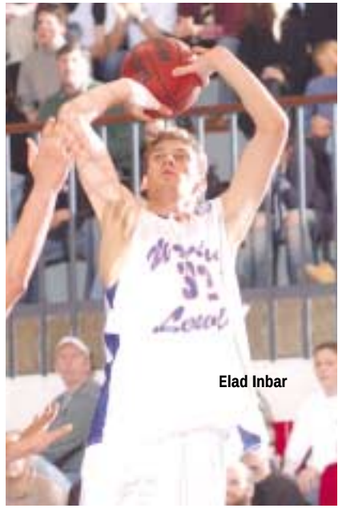
The River Hawks show a record of 100 wins and only 27 losses during the four years that Inbar and Grunwald played; 56-11 during their junior and senior seasons. The 100 wins are more than any other UMass Lowell basketball players have been part of. Their teams won the NCAA Northeast Regional tournament two years in a row and played for a National Championship as part of the NCAA Division II Elite 8.

The River Hawks would not have been there without the man an opposing coach described as "The Larry Bird of Division II." Inbar is remembered for the steal of a pass and two free throws that sealed the Northeast-10 Championship, a 3-point bomb with 14 seconds remaining against Southern New Hampshire that sent the game into overtime, and the River Hawks to an eventual victory in the NCAA regional, and for a fall away basket with 4.2 seconds on the clock that defeated Bryant and won the NCAA regional.

Fans remember the baskets better than Inbar does. "Those kind of shots, I don't remember," he says. "I don't remember taking them, it's just something that happens during the game, you lose yourself in the moment. All you can remember is what you saw, later, on the video tape."

Inbar may not remember the shots, but he's always been comfortable with the situation. "I play well under pressure. I don't think about it as the last shot," he says. "I'm not thinking I'm going to win the game; it just comes natural to me to take that shot… and do well. Maybe I have too much of an ego; I'm confident in myself."

As much as Inbar has taken and made big shots, there are times basketball Coach Ken Barer has to remind him, he is the go-to guy. "He's a terrific player, but there are times," says Barer, "where I do have to tell him to shoot the ball. He is a very team-oriented player."


Elad Inbar

The "Larry Bird" comparison is not a new one. It's been following Inbar for a while. As a youngster he would attend practices of an older team coached by his father Zvi. "Every time I'd come into practice, he used to introduce me to the team as Larry Bird," says Inbar. "He was always a player I admired, tried to copy."

Inbar's father was also once a hero. Zvi Inbar was a member of the Israeli national team and often the team's top scorer and played professionally in Israel. Those are footsteps the younger Inbar would like to follow.

Although drafted by a team in the United States Basketball League and given a tryout by the National Basketball Association's New Jersey Nets, Elad Inbar hopes to play professionally in Israel and to represent his country in international competition. "I hope to play at the highest level," Inbar says. "I hope to play for the 2008 (Olympic) team."

– BE

Tom Clarke: Balls and Strikes from a Different Angle

Tom Clarke used to stand atop the pitcher's mound and stare in at home plate. He probably did not have much sympathy for the umpire; now the roles are reversed.

The UMass Lowell alum is still pursuing a baseball career, but the tools and the job have changed. He has little sympathy for pitchers… "none whatsoever."

At 27 years old, Clarke is a first year umpire in the Class "A" New York-Penn League, a short season, entry-level league. The league's teams are part of "organized" baseball. The rosters are stocked with players whose rights are owned by major league teams; one step on a long road to major league baseball.

For Clarke it has already been a long road. He finished his River Hawk playing career in the spring of 1999. An imposing pitcher, standing 6-foot-7, he went 8-0 with a 2.27 earned run average, good numbers at any level. His team won 37 games and participated in the NCAA Tournament.

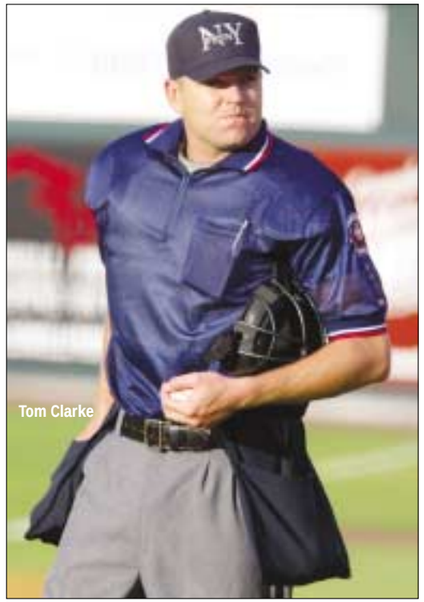
But his baseball playing career was over. "At the end of that season I had nothing left in my shoulder," says Clarke, "so there was no chance of playing (anymore)."

So, he fell back on what had been his *side job* through college. "I ran into a couple of professional umpires who worked one of these games, (NYP), so I picked their brains all night long and it peaked my interest."

He'd begun umpiring little league games at age 13. "It was something to do. They paid us a couple of bucks. For a 13 year old kid, ten bucks is a lot of money. It kept me in the game."

The umpiring career still had to wait until Clarke graduated. He had enough credits to graduate, just not in the right places. It took another two and a half years before he was done.

He graduated from UMass Lowell in December 2001 and entered umpiring school a month later. Clarke went to the Jim Evans School for umpires in Florida, twice. The first time he injured his knee and missed three weeks of the five-week session. The second time, he didn't miss a day.


Tom Clarke

The Evans School taught Clarke the rules and the mechanics, and during the final two weeks focused on "situation management." That, Clarke confesses, is the toughest part: "They throw everything in the world at you and see how you react." Instructors charge out onto the field and argue calls. Some students handle it well, some don't. "They will clam up, get nervous, or fall over," says Clarke. "That's how they weed 'em out."

"They don't want robots; they don't want cookie cutter people; you have to develop style. That's authority. You can't teach it."
— Tom Clarke

Clarke was one who did handle it well. "I'm still not used to it, but I'm prepared for it," he says. The key may be an individual's personality. Clarke's has been described as bubbly: "I'm a people person; I like to talk; I like being out there. I think I've got a good personality for it. If you don't have the personality for it you can't work out there. You've got to adjust and think on your feet."

It was in school that Clarke began to develop a style. Rules and positioning are important but style brings with it authority. "They don't want robots; they don't want cookie-cutter people; you have to develop style. That's authority. You can't teach it."

Clarke spent one year umpiring in the Northeast League, an independent league with no connection to his ultimate goal, Major League Baseball. Now in the New York-Penn League he is a step closer.

Life in the minor leagues takes some adjustment. An umpire had best learn to live on the road. "You don't do this if you don't love it. Our lifestyle… we don't have home games," says Clarke.

In the New York Penn League a season consists of 76 games in 79 days in cities and towns that seldom are marked in bold on road maps. For every Brooklyn and Staten Island there is a Batavia and Oneonta. "We're driving from here to Brooklyn at 4 a.m." says Clarke on a visit to LeLacheur Park in Lowell.

The stop in Lowell was as close to home as the Andover resident gets. "Could you tell I was from around here? I got booed out of the stadium. "Five thousand people booing. There are no home games. If you don't love it there is no point being here."

An umpire has one friend; his partner. In Clarke's case it's Vic Carapazza. They live together in a series of far-less-than four-star hotels during the three-month long season. They use Carapazza's car and share the driving. "Games take care of themselves," says Clarke. "The travel is the toughest part."

Killing time in a hotel room in some forgotten stop on the road to the major leagues is not that difficult. "We have to take care of each other. We talk about games; we talk about umpiring, we have situational manuals we go through. "We're trying to make each other better."

– BE

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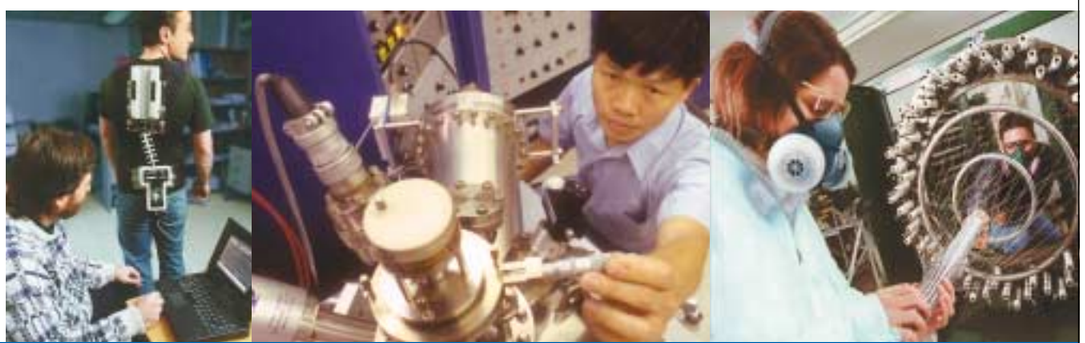

QUALITY GRADUATE EDUCATION AT AN AFFORDABLE COST

AlumniEvents

1.) The annual RAD Sciences alumni gathering was held on May 11 on campus. Scholarship awards were presented to two master's degree candidates during the ceremony. Proudly displaying the UMass Lowell banner are, from left, Prof. Clayton French, Asst. Prof. Mark Tries, Department Chair Jim Egan, scholarship recipients Diane Quintero and Julie Gostic, and Mike Ryan '74, '76.

2.) The 2004 Distinguished Biology Alumni Award was presented to Tom O'Connor '77, '80 during the annual department awards ceremony and alumni reception. Pictured from left, Retiring Chair Prof. Robert Lynch, Tom O'Connor, Dean of Sciences Robert Tamarin and retiring Prof. Dave Eberiel.

3.) This alumni foursome and perennial players in the UML annual golf tournament are, from left: Richard Cacciapouti '63, '78, John DiStefano '71, '77, Mike Ossing '81, and Bob White '70, '73.

4.) Participants in this year's UML golf tournament at Sky Meadow Country Club included, from left, the foursome of Fran Day, Diana Day, Larry Day and Joe Day, '66. It was an all-Day event.

5.) Members of the 1988 Basketball championship team reunited for a round of golf during this year's UML tourney. From left are, John Paganetti '84, Captain Leo Parent '88, Gavin Cummings '88 and Bobby Licare '88.

6.) On the eve of the 2004 commencement ceremonies, a dinner was held at Vesper Country Club for Honorary Degree recipient Charlie Hoff, '66 and Distinguished Alumni Award recipient Frank Spinola '66 and their families. Pictured from left, Provost John Wooding, Charlie Hoff '66, Frank Spinola '66 and Executive Vice Chancellor Fred Sperounis.

7.) UMass Night at the Pops was held on the evening of June 23 at Symphony Hall in Boston. The concert was conducted by Marvin Hamlisch with a little help from UMass President Jack Wilson and Board of Trustees chairperson Grace Fey. From left are, Dave McInerney '76, Vice Chancellor Administration and Finance for UMass Lowell Louise Griffin '78, Steve Gendron '85 and Kathy Gendron '85.

8.) Those enjoying the Pops performance for UMass Night on June 23 included, from left, Debbie Penney, Bill Penney '75, Herbert Goldberg '43, Barbara Goldberg and UML Director of Development Mike MacNeil.

Class of '46 Has Perfect Reunion Record

Members of the Class of 1946 from the State Teachers College at Lowell have held a reunion every year since graduation. Those attending this year, at the home of Doris Lowrey Tereshko, were Martha Basile Maloney, Rose Clemente DeMasi, Rosemary Nicholson, Louise Levingston, Helen Corbett Moriarty, Doris Tomlinson, Elizabeth Cluin Quealy and Marjorie Merrill Robinson. Pictured at their reunion held in 2003 are, standing, from left, Louise, Rosemary, Rose and Martha; seated, from left, Elizabeth, Doris and Helen; and seated in front, Doris. Others who have attended recent reunions were June Crowley Traynor, Charlotte Spieler Cohen, Martha Yoshida Suminas, Lucy Valente Davis and Mary McDonnell Cole. "We have met every year," the women say. "We wonder if any other class can match this record?"

1958

Edward J. Snyder, Jr. was recognized for his support of education, leadership in the business industry and volunteerism in the community with an honorary Doctor of Public Service at the May 15 commencement ceremony of the University of North Carolina at Charlotte. He serves as the director of the UNC Charlotte Foundation and was a member of the Board of Trustees for eight years. He is also active in the Albemarle community as chairman and trustee of the Stanly Community College Foundation and director of a foundation of the Roman Catholic Diocese of Charlotte. Additional affiliations have included director and member of the executive committee of the North Carolina Textile Manufacturers Association and president of the Stanly County Manufacturers Association and various community honors.

1964

David Healy started Healy & Associates, Inc., as manufacturers' representatives to the paper, plastic and coatings industry with specialty chemical additives.

1970

Kathleen (Pigeon) Clark Beckert, widowed in 2000, recently married Dietmar Beckert and the couple honeymooned in Dietmar's native Germany. Kathleen is in her 24th year as a chiropractor and Dietmar operates a sawmill. They mountain climb and garden together. Kathleen recently welcomed a newly graduated chiropractor to her office in Hartland, Maine, which will help to ease her work load.

James F. Kelley, Jr. spent 10 years in the banking industry after college and then 17 years managing one of the largest liquor stores in the state. In 1995 he became the parking operations manager for the city of Quincy and in 2003 moved to the state lottery security department. James has been married for 31 years, has three children and lives in Quincy, where he grew up.

1974

Louise Hart has written a book entitled *Rosie's Rule*, which can be ordered through publishamerica.com It is a book about a "war" that school children declare on schoolyard violence and is a "testament to the resiliency, creativity, self-determination and the power of the individual to make a difference."

Juan S. Linares retired from the Venezuelan oil industry after working for 28 years in information technology. He attended a culinary academy in Caracas and is now an executive chef at a Swiss restaurant in the mountains of Caracas. He is planning to open his own restaurant in the Caribbean in the future.

1974

John David Murphy is pleased to announce that his daughter, Lindsay, has signed a NAIA basketball scholarship with nationally ranked Berry College of Rome, Ga. The 5-foot-4 point guard has been recognized by the Atlanta Tipoff Club as one of the premier college basketball players in the Greater Atlanta area.

1976

Brett Blaisdell was awarded a *Design News* Engineering Achievement Award for Global Innovation. Photographic film and the additives used in engineering plastics don't always mix, making it tough to develop materials for single-use cameras. Blaisdell led a team of Kodak engineers that developed a new kind of color camera that can sport different looks in different parts of the world.

Jim Fraser has been appointed by BAE systems as director of business management for the Information and Electronic Warfare Systems (IEWS) unit headquartered in Nashua, N.H. Fraser and his wife, Donna, live in Chelmsford. Their son Jim is a senior at UMass Amherst.

Edwin Njoku has been in Baghdad since January and was appointed by General Sanchez as the radiation protection officer for the Combined Forces in Baghdad. He can be reached at igewekala.e.njoku@us.army.mil

1980

Suzanne A. Page is assistant to the managing director/manager of board administration at the Boston Symphony Orchestra. Suzanne writes that she "graduated in 1980 with a Bachelor of Music degree and studied with Eunice Alberts, who is still teaching voice at the Department of Music."

1983

Kim (Savage) Bass owns and operates Bass Enterprises, which produces state shows for NBC television including Miss New York USA/Teen USA Pageants and Miss New Hampshire USA/Teen USA Pageants. Kim writes that she owes a lot of her success to her education at Lowell and the extracurricular activities which afforded her "extraordinary leadership experiences as vice president of student government, pledge mistress of Alpha Omega sorority, orientation guide for freshmen, Entrepreneurs Club member and Homecoming Court, to name a few."

Joan Gasparoni has been living on a coastal Atlantic Ocean island in South Carolina for seven years. She misses the "Boston folks" and would enjoy hearing from some college friends.

Charles Roche has been promoted at Pratt & Whitney to a technical leadership position. He recently joined the adjunct faculty at the University of Hartford in Connecticut and teaches composites courses at Pratt & Whitney's Engineering Technical University. Dr. Roche is currently the mechanical engineering advisory board chairman at UMass Lowell and remains active in the University's outreach efforts. He is married with two children, living in Tolland, Conn.

John Traphagan, Ph.D. has been appointed director of the Center for East Asian Studies at the University of Texas at Austin.

1979

Glenn Tainter and Sandy (Landry) Tainter, seen here with sons Glenn and Adam, recently celebrated the 25th anniversaries of their marriage, graduation and move to Virginia. They met on their first day of classes in Cumnock Hall and dated throughout their college years, and are "best captured on page 84 of the 1979 yearbook dancing at the senior semi-formal." Glenn has advanced through the years to aircraft carrier project superintendent at Norfolk Naval Shipyard's Nuclear Engineering Department. Sandy "retired" from her career as an accounting department manager prior to the birth of her first son, but has been active in both of her boys' activities, full and part-time teaching, Scouting, and has been recognized throughout her community as an outstanding volunteer. They extend their best wishes to all their friends and classmates as they all celebrate their 25th.

1985

Bradley Mingels has been named marketing manager for Venture Tape Corporation, a worldwide manufacturer of specialty tapes and foils. He also is an adjunct professor in the College of Engineering. Bradley is a co-founder and coach of "Nautical Mile," a track and field program for South Shore youth in grades 2-8. He also coaches in the Scituate youth sports program.

Paul Bertrand and his wife, Wendy, welcomed their second daughter, Amanda, in December 2003. Dad assisted with the birth, and managed not to faint. They moved to Lunenburg in 2002, where the family also includes two yellow Labs. Paul is looking forward to both girls obtaining collegiate golf scholarships.

1986

Demetrios Venetis writes that he is "ecstatic, thrilled and overjoyed" to announce the birth of his first child, Sophia Irini Venetis. She was born on April 22. Both mom and baby are doing great, and dad is on an emotional high.

1987

Wayne G. Fisher was licensed by the Board of Public Accountancy as a Certified Public Accountant (CPA) in January. He is a technical specialist with the Department of Defense and lives in Billerica.

1989

Michael D. Coffey married Rebecca (Lanier) Coffey '99 on July 26, 2003. Michael is a senior meteorologist for Meteorlogix, LLC in Woburn. Rebecca is an operational forecaster for WSI Corporation in Andover, and they live in Dracut.

1990

Tara Denno Guschov was promoted to senior criminal investigative analyst at the Insurance Fraud Bureau of Massachusetts. She received a Professional Service Award from the International Association of Law Enforcement Intelligence Analysts for outstanding contributions as an intelligence analyst to the achievement of law enforcement objectives. Recently she was awarded lifetime certification by the Society of Certified Crime Analysts.

1992

Peter S. Haslam and his wife, Cindy, moved in 2002 to Geneva, Ill., where Peter is controller for Prairie Business Credit, Inc.

James E. McGaugh recently joined Citigroup as vice president and counsel overseeing legislative and regulatory activity in New England for the world's largest financial institution. He was previously employed as state and federal government affairs director for NSTAR Electric & Gas. James lives in Needham with his wife, Katherine, and two sons, Quinlan and Aidan.

Bethany (Patriquin) Tsioropoulos and husband Dean'91 welcomed their second son Evan in April 2003. He joins big brother Alex. Bethany is director of vocational services at Career Services Corporation in Haverhill, and Dean is a music teacher completing his master's in music education at UML.

Heather (Ward) Kirby and her husband, Bob, adopted their first child, 11-year-old Jasmine, in February. In March, at the Massachusetts Music Educators Association's Annual All-State Conference, Heather received the Excellence in General Music Award from the Society for General Music in Massachusetts. She teaches music in Dedham.

1993

Julia (Willis) Dunning and her husband, Mark, started a nonprofit called Decibels Charity to ensure funding for education for children with hearing loss. Decibels has provided funding for Minute Man Early Intervention Program for Children with Hearing Loss in Concord, the Caroline Bass Fund at Children's Hospital in Boston and the Thayer Lindsley Nursery at Emerson College in Boston. Julia and Mark's daughter Annabella has hearing loss and is doing remarkably well with the assistance of a cochlear implant. Decibels recently held its annual golf tournament at the Wedgewood Country Club in Stow, where Julia lives. Anyone interested in participating, sponsoring or donating can do so online at decibelcharity.org.

Captain Jason Mackay relinquished command of the 95th Maintenance Company (TMDE) in a ceremony at the John M. Cone Metrology Laboratory on Redstone Arsenal, Ala., in April. Jason commanded the only calibration and repair company for Test, Measurement, and Diagnostic Equipment (TMDE) in the Army. He assumed command in June 2002 and commanded for 22 months. Jason deployed the company to Kuwait and Iraq during Operation Iraqi Freedom where he led the company and coordinated calibration support for Iraq, Kuwait, Afghanistan and Uzbekistan. His awards include the Bronze Star, Meritorious Service Medal, Army Commendation Medal with third Oak Leaf Cluster (OLC), Army Achievement Medal with 1st OLC, Global War on Terror (GWOT) Expeditionary Medal, the GWOT Service Medal, Korean Defense Service Medal, Army Service Ribbon and the Overseas Service Ribbon. Jason is married to the former Jennifer Lynn Carey of Hesperia, Calif., and has a daughter, Emma, 2.

Bruce Marshall accepted a promotion to product manager at WebMD and, as a result, was relocated to the Nashville, Tenn., headquarters. His wife, Carrie Moore Marshall '95, recently released her first solo CD. (See 1995, next column.)

Armen Najarian is the director of product management at Softcoin, Inc., in Brisbane Calif.

1994

Timothy Looney recently authored an Auto CAD textbook published through McGraw Hill/Glencoe which he said was "one of the hardest but most interesting jobs" he has ever had. *Hands-On AutoCAD* is a comprehensive, basic CAD textbook that teaches the AutoCAD software using short, interesting projects that will capture and hold student attention. The chapters are ordered logically for CAD, rather than for traditional board drafting. In addition, each chapter has a separate "Teamwork Project" designed to allow students to pursue chapter topics in a second real-world scenario. *Hands-On AutoCAD* is designed from the ground up to meet national standards. Tim will be using the text in his classes at UML.

David Watters, vice president of operations at Cabrera Services, received notification from the ABHP that he successfully passed the certification exam and is now credentialed as a Certified Health Physicist. Watters, who has an M.S. in radiological health physics from UMass Lowell, is one of the founding principals of Cabrera, an 8(a) certified, small disadvantaged business providing specialized radiological and environmental consulting and field services to federal and state government and private industry across the United States.

1995

Carrie Moore Marshall has released her first solo CD, all songs she wrote and arranged. It was recorded and produced by Terry Skotz, 1994 SRT. Carrie's husband, Bruce Marshall '93, sings on a number of the songs. The CD has been released through an independent distributor, indieheaven. Interested alumni can go to the website (www.indieheaven.com) and type "Carrie Marshall" in the search by name field. Dean of Student Services Tom Taylor plays back-up acoustic guitar on a few songs—so the CD really has UML connections.

1996

Cristy (Davidson) Rosenhahn and her husband, Scott, welcomed a daughter, Shelby Lynne, born in April. Cristy graduated from Massachusetts School of Law in 1999 and is the contracts manager for NSI Software, Inc. Cristy and her family live in Grafton.

Jennifer M. Wetmore completed a one-year judicial clerkship in October 2003 through the Attorney General's Honor Program at the Executive Office for Immigration Review in New York City. She now practices immigration law at a firm in Lynn.

1998

Jonathan Adam August is a physical therapist at Rikers Island Correctional Facility in New York. In the summer of 2001 he was designated the athletic trainer/physical therapist for the Gold Medal winning USA Men's Basketball Team in the Maccabiah Games in Israel. In the Spring of 2002, he became an introduction leader for Landmark Education and also graduated from the Institute for Integrative Nutrition as a certified holistic health counselor. He has been working as a holistic health counselor since then in his own private practice based out of New York City. He completed the 2002 New York City Marathon in 4:19:20. During the Summer of 2003 he spent six weeks of intensive training in Pune, India, at the OSHO Meditation Center to further his holistic health counseling practice. In April 2004 he teamed up with Time Warner Cable of Milwaukee in making four video segments for their "On-Demand" service that discusses a range of health issues from childhood obesity and the effects of sugar on the body to how food affects our immune system. He is now training for the Mighty Hamptons Triathlon, which will be held in September.

Heather L. Melito-Dezan has graduated with a J.D. from New England School of Law in Boston.

1999

Rebecca (Lanier) Coffey married Michael D. Coffey '89 on July 26, 2003. Rebecca is an operational forecaster for WSI Corporation in Andover. Michael is a senior meteorologist for Meteorlogix, LLC in Woburn. They live in Dracut.

Kara L. Kelley was promoted to senior engineer at XDD, LLC, a small environmental remediation consulting firm in Stratham N.H. Kara received her master's in civil engineering at UML in 2000.

2001

Anna Shuman Oliver is the community resources coordinator at Cedar Crest in Pompton Plains, N.J. Anna received her master's degree in social work from Syracuse University, with a concentration in community organizing, policy, planning and administration. She is experienced in the non-profit, health care and volunteer management fields. At Cedar Crest, a campus for middle-income people, age 62 or over, she works with the Resident Life team, which focuses on enhancing the quality of life for the residents by promoting and coordinating resident events, activities, interest groups and educational programs.

2003

Emily Neal and Michael Irving are getting married on October 30 at St. Michael's Church in Bedford. Emily is a property manager for the Nashua Housing Authority and Mike is a customer service manager for the Beverly Port

In Memoriam

1926
Beatrice E. Condon

1927
Mary A. (Hughes) Barr

1928
Mary R. (Corbett) Sullivan

1931
Ruby A. (Donnelly) Fitzsimmons

1932
Cecilia M. McManus

1934
Adele J. (Connor) Fuller
Edna Hoyt

1935
Gertrude L. (Schwartz) Frank

1940
Edward M. Lynch, Jr.

1943
Eileen M. (Flynn) Cunha

1944
Bernice E. (Engstrand) Kelly

1947
Sofia N. Giavis

1948
Jean F. (Duffy) Kephart

1950
Robert M. Lacey
Joan C. (Brunelle) Matthews

1951
Nishan Boghosian
Ludwig Rebenfeld
Robert W. Spencer

1952
Gordon L. Axon
Stephen J. Bodor

1953
Trevor A. Finnie

1954
Helen (McSweeney) Hauser
James F. O'Sullivan
Catherine A. (McDermott) Warry
Florian J. Weissenborn

1958
Vivian R. (Cornwall) Norton

1959
Mary J. (Quinn) Gallucci

1962
David P. Wade

1963
Frances D. (Devlin) Galle

1965
Stephen C. Tacelli

1968
Theresa A. (Mendonsa) Caldwell
Eric S. Goulston
Roger A. Poor

1971
Arlene R. (Tracy) Barsamian

1977
Jean D. Dupuis
Michael F. Mohan

1981
Thomas G. Babcock

1983
James J. Navarro

1985
Judith D. (Uwazany) Windham

1987
A. Robb Frederickson

1991
William R. Finn

2002
Jeanine M. Rodgers

2003
Sharon A. Rocheleau

Faculty, Staff and Friends

Kenneth L. Rogers,
Professor Emeritus

Frances C. Rogers

Marina. Best wishes and congratulations Emily and Mike!!

Matthew Ridley is teaching a special education class in a Lynn middle school and will be in grad school in the fall at either UMass Boston or Cambridge College, studying school adjustment counseling.

Rob Velella has been named director of the student newspaper and radio at Washington and Jefferson College. In his new position, Velella oversees and advises student media, including W&J's student weekly newspaper, the *Red & Black*, and the campus radio station, 91.7 WNJR-FM. "Rob brings W&J the foresight and professional attitude he displayed at his alma mater, UMass Lowell, where, as an underclassman, he personally took on the challenge of returning his student paper, *The Connector*, to prominence and legitimacy among the campus community," said Susan Yuhasz, W&J dean of Student Life. "His ability to apply professional standards of journalism to student media without removing a bit of the spirit and unique perspective of student writers and broadcasters will help W&J build upon the strong foundation it has built in student media." Rob was recently honored at UML with the dedication of the "Rob Velella Editorial Room."

On Mother's Day, a Gift of Elegance and Hope

For a domestic-abuse victim, a family holiday can be a time of loneliness and bitter reminders. But for at least 10 such women this Mother's Day, thanks to a few local businesses and a UMass Lowell alumna whose specialty is enhancing the lives and looks of others, it was anything but that.

On the day after Mother's Day, May 10, in an event choreographed by the Alumni Relations Council, the 10 woman, all residents of Lowell's Alternative House, arrived at Wannalancit Mills for a day of coiffed hair, treated skin and pampered egos.

The plan had begun hatching late last year, when the Council, in search of a gesture of community outreach, contacted Alternative House, a shelter for women and children victimized by domestic abuse. Council member Tom Kershaw '88, put in a call to friend and fellow alum Chris Vasiliadis '87, founder and president of Burlington-based Signature Faces, to enlist her makeup skills.

Vasiliadis took it from there. Her company, which specializes in makeup consulting — but focuses also on image enhancement in general — in turn recruited a second makeup artist and two hairstylists; local charity Suitability donated new suits. Part of the idea, says Deme Gys of University Advancement, who helped coordinate the event, was to provide an image-boost to the Alternative House women, which would then hopefully carry over into interviews and new jobs.

From all accounts, the day was a success. The women arrived in their new suits, warmly welcomed by Council members and beauty professionals. Each then had her choice of hairstyling, makeup or a sampling of both, while all enjoyed a light dinner of sandwiches, salad and dessert. Several had their pictures taken with their makeup artists or hairstylists; one, says Chris Vasiliadis, "literally gasped with glee after seeing her new self in the mirror."

The women left after dinner, says Vasiliadis, "not only with a new look and a gift of makeup supplies, but with wide, genuine smiles and a brand new way of looking at themselves."

Chris Vasiliadis

Migrant Engineer Finds Home at UML

UML engineering graduate and entrepreneur Bill Morrison is finding a home for his nascent company, Sky Meadows Solutions, LLC, in the new business incubator at the university's Office of Research Administration.

"I went through what it has to offer and it seems like a really good fit," said Morrison, who plans to be in the new offices by the end of the year. "It's hard working out of your home. I feel much more energized when I can work alongside other entrepreneurs, even those in other fields, where we can discuss experiences and ideas to generate creativity. This should be a great jump start for my company."

Morrison started his engineering consulting venture when, after five years as program manager of development at GN Netcom in Nashua, he was laid off in the wake of tech industry downsizing that saw many others lose jobs as well. However, unlike many others, Morrison knew those halcyon days would not return.

Bill Morrison

"Companies that laid off their engineering departments won't be hiring back even 80 percent of those employees, but there will be a demand for production services," Morrison said. "Instead of trying to fight them, I'm joining them."

He founded Sky Meadow Solutions as a program management development company allowing his clients to employ his services at any point in the design and production process, paying for what they need as they need it.

As outsourcing becomes the rule rather than the exception, Morrison feels his well-rounded experiences in both the engineering and operations ends of telecommunications, medical technologies, electronics and semiconductors make him an attractive alternative to the high overhead of a full time, permanent staff.

The new business incubator is operated under the guidance of Louis Petrovic, Director of External Funding, Technology Transfer & Partnering at UML.

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