INSIDE

Faculty and Staff Notes	2	Catherine McCormick's Fifth NSF	3
Letter: More New Courses	2	Transitions	3
Obituary: Robert Gunderson	2	John Bucher on Computer Support	4

The Observer

Volume 18, Number 11 February 28, 1997

THE OBERLIN COLLEGE FACULTY AND STAFF NEWSPAPER

PHOTOGRAPH BY JOHN SEYFRIED

Steve Paxton helps Ann Cooper Albright show junior Raeff Cohen how to fall—softly.

Founder of Contact Improvisation Helps Oberlin Celebrate 25 Years of the Dance Form

Twenty-five years ago dancer and choreographer Steve Paxton created *Magnesium* at an Oberlin workshop. The dance was to become the first piece in the form now known as Contact Improvisation (CI). Two weeks ago Ann Cooper Albright, associate professor of dance, brought Paxton back to Oberlin for a workshop in which he taught the physical practices he has been refining since he created that seminal work. Paxton's two-week residency was part of the Theater and Dance Program's year-long celebration of CI that will culminate with a national conference on the dance form June 3-15.

Oberlin's 25th-anniversary CI celebration also includes contact jams—informal, free public-dance events at 4 p.m. on Sundays during second semester in Warner Center Main Space—and an April event called Back to the Source Jam. The April 19 and 20 jam will include dancers from all over the country, says Cooper Albright.

Influenced by Asian martial arts such as Tai Chi and Akido, CI facilitates "a conscious, engaged dancing with others in a group, using such skills as rolling, learning when and when not to give weight, how to receive weight, and how to fall softly," says Cooper Albright. It focuses on the "visual, physical, rhythmic, and emotional points of contact that set up the physical ground for dancing."

Curricular Innovations Surge Ahead with 2 New Arts and Sciences Programs

By Clayton Koppes

Several important new curricular innovations will be funded in the College of Arts and Sciences next year, supported by the reinstated Curriculum Development Fellowship program and a new initiative, the Scholar-in-Residence for Curriculum Development. These faculty initiatives significantly augment ongoing efforts to broaden the curriculum, such as those reported in the *Observer* of January 31 and February 14 ("45 New Courses Bring Oberlin to the Cutting Edge in Offerings" and "New Courses in the Arts and Humanities Extend the Evolution of the Curriculum").

Curriculum-development fellowships provide released time for faculty members to develop new courses. The scholar-in-residence program, begun this year, enables the college to bring new faculty members for up to a year in areas not now represented in the curriculum. Most of the courses supported by the fellowships will make their debuts in 1998-99. Scholars-in-residence will teach at Oberlin in 1997-98.

The Educational Plans and Policies Committee (EPPC) received 18 applications for the fellowship and scholar-in-residence programs. After evaluating them, EPPC chose to fund three curriculum-development fellowships and two scholars-in-residence. College Faculty Council endorsed the choices.

The curriculum-development fellowships go to:

• Bruce Simonson, professor of geology, who will move into what for him will be a new specialty by developing a new course in hydrology. The geology department has identified this area as a priority for several years; it also has important links to the Environmental Studies Program.

• Michael Fisher, professor of history, who will create a new course, The British Empire in England, 1750 to the Present. A specialist in South Asian history, Fisher will shift his focus to issues about the empire as they are played out in the metropolis.

• Dennison Smith, professor of neuroscience and psychology, who will introduce a new course in neuroscience for a general audience. His course not only will introduce nonscientists to recent advances in the field, but it will help address the need for more science courses for general audiences.

Scholars-in-residence will be for:

• History of Science: A two-semester appointment lodged in the history department, this position will offer a way to bridge the "two cultures." The position is designed to include significant coverage of the 19th and 20th centuries in order to have maximum appeal to science students.

• Dance Pedagogy and Interdisciplinary Performance with an African-American Emphasis: Besides introducing students to African-American dance forms in an interdisciplinary context, this one-semester position will help address rising student interest in teacher certification and also entail further training for Oberlin faculty.

Curriculum and faculty development are high priorities for the college. Both programs will be continued next year, subject to availability of funding.

Clayton Koppes is dean of the College of Arts and Sciences.

New Administrative Computing Systems Are Dubbed OPUS

If Bloom County cartoonist Berke Breathed permits it, images of a little puffin named Opus will be seen all over campus in the coming months—a reminder that OPUS is coming. OPUS is the name bestowed by Ellen Sayles—a member of the Administrative Computing Advisory Committee (ACAC) and assistant dean of the Conservatory of Music—on the new integrated administrative computing system that the coming Great Migration in administrative computing will leave in its wake. (See related articles in the *Observer* of February 14 and the issues of November 8, May 24, April 5, and March 1, 1996.)

OPUS stands for Oberlin Project for Unified Systems and is, according to the mission statement announced at a luncheon in the lobby of Philips Gym Monday, a "multi-year project which includes implementation of the SCT Banner integrated client/server system and other auxiliary software."

Three speakers addressed the 60 or so attendees of the OPUS kickoff luncheon. Most attendees were members of the committees spearheading the changes: the OPUS Executive Steering Committee (a previously unnamed committee—see "Administrative Computing Contract Signed; Campuswide Upgrade Project Moves toward Kickoff" in the last issue of the *Observer*), the Information Technology Policy Committee, and ACAC.

President Nancy Dye told the lun-

Continued on page 3

Oberlin 2020
BUILDING OUR FUTURE

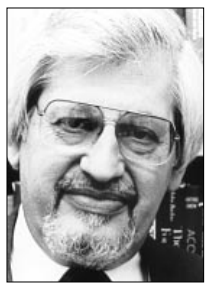
Town meetings to consider Oberlin's future are the day after tomorrow, Sunday, March 2, in Wilder Hall. Fourteen hour-and-a-half sessions begin at 1:00, 2:30, and 4:00.

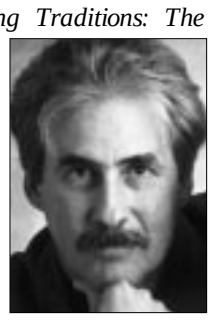
PHOTOGRAPH BY JOHN SEYFRIED

The OPUS balloons were a big hit with luncheon guests John Bucher, Andy Evans, Michael Lynn, Sandra Youngeberg-Fox and Monica Wachter.

Faculty and Staff Notes

Medical Coordinator and College Physician **Judith Appleton** has been recertified a diplomate of the American Board of Family Practice (ABFP) for the fifth time. Recertification is necessary every six years; Appleton was first ABFP certified in 1972. Certification and recertification by the board involve passing a written test about pediatric medicine, internal medicine, surgery, obstetrics, gynecology, psychiatry, prevention, and other aspects of medicine. Recertification also requires an ABFP review of clinical records to ascertain proficiency in the management of specific diseases. • **Gary Kornblith**, associate professor of history, is mentioned in "Surfing a Tidal Wave," an article in the *Washington Post Magazine* of February 2. Reporter Amy Virshup, who attended part of the National Endowment for the Humanities faculty institute on the use of educational technology in which Gary participated last summer, tells the story of how Gary and his institute partner had trouble getting the technology to work in real time. "The article as a whole gives a pretty balanced view of the potential and pitfalls of using ed tech," says Gary. A project Gary is directing has received a $2400 grant from the Lorain County Public Service Internship Program. The funds will enable Gary to hire a summer intern to work with the Electronic Oberlin Group to enhance and expand a World Wide Web site and produce a CD on the history of the town of Oberlin. The web address is http://www.oberlin.edu/~EOG/. • The Bill Long Foundation has contributed $1000 to the Watershed Education Project that environmental-studies intern **Brad Masi** is directing. The project will give Oberlin public school children a better understanding of the Black River Watershed and the need to clean and protect the resource. It will also give Oberlin College students, working with local public-school teachers and their students, teaching and field experience. Another description of the project was in the "Faculty and Staff Notes" of the December 6, 1996, *Observer*. • Professor of Composition and Music Theory **Edward Miller** is one of three composers whose works are heard on the CD *A Hero of Our Time*, released recently by New World Records. The other two composers are his longtime friends **Walter Aschaffenburg**, emeritus professor of composition, and Edwin London '52, music director of the Cleveland Chamber Symphony and professor of music at Cleveland State University. All the pieces—Aschaffenburg's Concerto for Oboe and Orchestra, Miller's *Anacrusis*, and London's *A Hero of Our Time*—are "music [made] out of music," says London in the liner notes. "The music [the composers] replicate and parody in spirit and/or sincerely recycle in actuality is . . . of, if not in, the nineteenth-century style. . . ," he writes. "The three musical essays . . . represent activity in pursuit of a reconnected and reconstructed circumstance, one which acknowledges the madness and mayhem of the past, even as it cherishes its romantic beauty. . . ." Edwin London conducts the Russian State Symphonic Capella in the three works. • **Wes Sanders**, who taught English and theater arts at Oberlin between 1967 and 1978, has written an article, "The Making of InTOXICating: An Eco-Cabaret," that was published in the autumn 1996 issue of *Orion*. In the first paragraph he tells of finding a colleague at Oberlin (Debra Wise '75) who shared his vision of "a theater that would speak directly to the social justice issues of our time." The two founded a theater group in 1978 and named it the Underground Railway Theater (URT) partly to honor Oberlin's abolitionist past, he relates. In describing one of URT's relatively recent eco-cabaret pieces, *The Christopher Columbus Follies*, Sanders says it was inspired by a production of *The Trojan Women* that he directed while at Oberlin. URT received an Environmental Merit Award from the Environmental Protection Agency in May for its work on the eco-cabaret, which the EPA called "a significant contribution to the environment." (Oberlin College Archives Photograph) • Oxford University Press has published Emeritus Professor of Biology **Thomas Sherman**'s *A Place on the Glacial Till: Time, Land, and Nature within an American Town*, a geological, geomorphological, and ecological history of the Oberlin area. The *Plain Dealer*'s February 11 review of the book calls it a "vivid story" and says "Like Annie Dillard, Sherman writes with passion, accuracy and a poet's sensibility that make even the rocks sing." Tom gave the campus a taste of the work in his Sigma Xi lecture last spring. • Yale University Press recently issued in paperback *French Fascism: The Second Wave, 1933-1939* by **Robert Soucy**, professor of history. • Professor of Classics **Thomas Van Nortwick** and Judith Hallett have edited *Compromising Traditions: The Personal Voice in Classical Scholarship*, published in November 1996 by Routledge Press. The book is a series of essays, including two by Tom, on the use of a personal voice in writing literary criticism. "This topic is a hot one in academic departments of literature," says Tom. "Our book is the first one that treats the topic as it relates to scholarship in the classics." Hallett, professor of classics at the University of Maryland, is the mother of Nicholas Hallett, a senior voice major. • **Forbes Whiteside**, emeritus professor of art, displayed found objects in a four-person exhibit this fall at the Little Falls, New York, South Shore Arts Gallery. (Oberlin College Archives Photograph)





Robert Gunderson, Former Professor of Speech

OBERLIN COLL. ARCHIVES PHOTO

Robert Gunderson, who taught speech at Oberlin between 1938 and 1958, died November 24, 1996, in Greenbrae, California. He was 81.

Gunderson left Oberlin in 1958 to become a professor of speech communication and history at Indiana University (IU). He was the chief architect of several doctoral programs in the IU department of speech and theater. He also directed IU's American-studies program for 10 years beginning in 1968. In 1985, the year he retired, he received the Distinguished Teaching Award from the IU Student Alumni Association. He was the recipient of the highest honor given by his professional peers, the Speech Communication Association Distinguished Service Award. He received many other awards, published widely, and served his profession in many organizations.

In his U.S. Army service (1943-1946) he rose to the rank of captain in military intelligence. His wife, Virginia, preceded him in death.

Faculty Meeting

Memorial Minutes, Reports, and Discussion for GF

Meeting February 18 the General Faculty heard memorial minutes for Emeritus Professor of Pianoforte Wilbur "Bud" Price, presented by Professor of Pianoforte Joseph Schwartz, and Emeritus Professor of History Barry McGill, presented by Danforth Professor of History Geoffrey Blodgett. John Bucher, director of computing, spoke on the state of information technology at the College, and President Nancy Dye made a few comments on the strategic planning under way. "I hope you will participate in a number of ways," she told the assembled faculty. A short discussion followed a question by Professor of Politics Benjamin Schiff about College procedures for lodging a complaint against a College administrator. The topic will be revisited in a future General Faculty meeting, Dye said, and will appear on the agenda distributed beforehand. Athletic schedules for this spring were left on the table, as was the Scientific Misconduct Policy, although Professor of Chemistry William Fuchsman commented that an ad hoc committee reporting to the General Faculty Council would consult with departments and programs about refinements to the policy.

Letter

More New Courses in English Department

Among the courses initiated in the humanities (see "New Courses in the Arts and Humanities Extend the Evolution of the Curriculum" in the February 14 issue) are two English courses not mentioned in the *Observer* article. The English Department has created this year a new course category, Courses of General Interest. The courses, for nonmajors, have less writing and fewer credit hours than our standard introductory courses. Within this category Bob Longsworth and I have fashioned new courses: his is Introduction to the Study of Arthurian Literature, and mine is Introduction to Shakespeare. We hope our "sagas for scientists" and "plays for percussionists" will benefit students who can't—or choose not to—take the standard introduction to English.

Readers interested in seeing what I'm doing with Introduction to Shakespeare may browse the class web site, accessible from my homepage, http://www.oberlin.edu/~njones.

Nicholas Jones
Associate Professor of English

Assistant Professor of Russian Thomas Newlin reports that he, also, is teaching a new course, Literature and the Land: Writing Nature in Russia and America, cross-listed with Environmental Studies and Comparative Literature.—Ed.

The Observer (ISSN 0193-368X), the faculty and staff newspaper of Oberlin College, published 17 times a year, is delivered to employees and made available to students on campus. Copies are mailed to retired employees, certain alumni and friends of the College, and paid subscribers. The editor welcomes off-campus readers but does not always provide background information for them: news that has already been reported in the *Review* (the student newspaper) or announced elsewhere may not be reported fully or prominently in the *Observer*.

Editor: Linda Grashoff. Editorial assistant: Adam Shoemaker '96.

Published by the Oberlin College Office of Communications, Alan Moran, director. Address: Office of Communications, 153 W. Lorain St., Oberlin, OH 44074-1023. E-mail: observer@oberlin.edu. Issued biweekly August 30 to December 6, 1996, and January 31 to May 23, 1997. Periodicals postage paid at Oberlin, Ohio, and at additional mailing offices. Yearly subscriptions are $16.

Letters to the editor directly related to campus events are welcome; those from employees and students take precedence over those from other correspondents. All letters are subject to editing; if time permits, the editor will consult with the correspondent about changes.

All Oberlin College Office of Communications publications include a minimum of 10 percent postconsumer waste. Discarded *Observer*s may be recycled with office paper.

POSTMASTER: Send address changes to *The Observer*, Oberlin College Development Resources, Bosworth Hall 4, 50 W. Lorain St., Oberlin, OH 44074-1089.

Catherine McCormick Receives Her Fifth NSF Grant to Study the Ear and Brain

Professor of Biology Catherine McCormick was awarded $215,281 this month for three more years of research on the ear and brain, bringing her lifetime receipt of research grants past the million-dollar mark. The National Institutes of Health and the National Science Foundation (NSF) have supported McCormick's studies of hearing in fish almost continuously since 1982.

"People used to think that fish couldn't hear," says McCormick. "Even in the '80s people at conferences laughed when I talked about fish hearing. They said the fish inner ear was for balance only." Now, supported by behavioral, neuroanatomical, and physiological studies, fish hearing is no longer in doubt. But it is still not well understood.

The earliest vertebrates to hear are the fishes, and one reason that fish hearing is important to understand is that knowledge of fishes' primitive brain circuits can shed light on the complex circuitry of the human brain. Fish hear by means of inner-ear acoustic receptors that are covered by otoliths, also called ear stones. The otolith manner of hearing persists far along the evolutionary chain; at least some mammals hear some sound this way even though they, and all other land vertebrates, have evolved additional means to hear.

"Land vertebrates developed a new, membrane-covered, acoustic receptor in the inner ear that eventually became the dominant receptor for air-borne sounds," says McCormick. "The mystery is that the new receptor did not replace the old ones; the two kinds of receptors exist side by side in all land vertebrates."

Why, McCormick asks, didn't the old way of hearing disappear when the new one evolved? Otolith-covered acoustic receptors respond to very low frequencies of sound and do not rely on an eardrum to capture sound. Sound is transmitted to these primitive receptors by bone conduction; the few functional studies that exist demonstrate that some land vertebrates use them as seismic detectors. On the other hand, membrane-covered receptors detect sounds in the higher frequencies and, in most land vertebrates, work with eardrums to pick up sound waves in the air.

Do both mechanisms survive to maintain a spectrum of sensitivity across a wide range of sound? If humans also have the earlier kind of sound reception, could we, she wonders, develop ways to help deaf people detect some kinds of sounds with a better understanding of this primitive way of hearing?

McCormick's newest grant will enable her and her students to begin the search in land vertebrates for the primitive acoustic brain circuits that have likely persisted along with the primitive acoustic receptors. They will continue to study fish and will also study turtles, the most primitive living reptiles with eardrums, and snakes, which secondarily lost their eardrums as they evolved a burrowing lifestyle.

Using various neuroanatomical methods, they will trace the circuits between the old receptors (those covered by otoliths) and the brain, and the new receptors (those covered by membranes) and the brain. Did the evolution of membrane-covered receptors coincide with the evolution of a wholly new set of circuits, or did the membrane-covered receptors use the old circuits as a template? Are there places in the brain where the two circuits come together? These are just some of the questions McCormick will try to answer as she continues to study the coevolution of the ear and brain.

Transitions

New Employees

Joseph Gargasz (Columbus College of Art and Design B.F.A. 1996) is assistant preparator at the Allen Memorial Art Museum (AMAM). He worked at the Columbus Museum of Art from 1991 to 1996 and at the Columbus College of Art and Design from 1993 to 1996. He received the Elizabeth Greenshields Foundation Grant to attend the Columbus College of Art and Design, and has received the Ibaraka Prefecture Medal for participating in an international stone-carving symposium. One of his outdoor stone sculptures is installed at the Worthington (Ohio) Arts Council. His work has been published in *Botticelli*, a poetry and design publication. He says he looks forward to providing cultural service to the community. **Suzanne Garland** (Brenau College B.A., University of Georgia M.Ed. 1989) is women's volleyball coach. Garland coached at Emory University from 1990 to 1996. Before that she worked at the Atlanta Healthcare Alliance (1989-1990), and she taught and coached at Brenau Academy from 1980 to 1989. In 1995 she was named the JCPenney/Georgia Intersport Network State Coach of the Year. She participated in the Atlanta Olympic Games as a volleyball official and the Atlanta Paraolympic Games as an administrative worker. Garland enjoys tennis, bowling, swimming, reading, painting, and drawing. She says she looks forward to "working with so many interesting people who feel that Oberlin is more than just a place to work."

Perry

Elaine Perry (Oberlin College B.A. 1986) is visiting instructor of creative writing. She has also studied at Columbia University and the Center for the Media Arts. Perry has worked as a freelance editor, freelance graphic artist, a health-care public-relations consultant, and a writing instructor for community writing projects sponsored by the National Writers Union. The co-publisher of *Vigil Anti*, a literary magazine, she was awarded the Claire Woolrich Scholarship in Writing by Columbia University and the Ohioana Award by the Ohio Library Association for her novel *Another Present Era* (Farrar, Straus, & Giroux 1990). Perry has had works published in the *Wooster Review*, *Prism International*, *Yellow Silk*, *Poetry Motel*, *Grue*, and *Blue Buildings*. She says she looks forward to working with Oberlin's aspiring writers and sharing her experience with them. She enjoys cooking, baking, visual art, music, film, photography, and drawing, and has competed regionally and nationally as a racewalker. **Nathalie Ryan** is education intern at the AMAM. An Oberlin College student, she plans to graduate in 1997. She worked as the AMAM summer assistant in the museum's education office during 1996, and has been a team member of the ExCo Public Education in Cultural and Natural Resources Project, an assistant teacher at the Firelands Association for the Visual Arts, and a collections intern for the Sixth Floor Museum, part of the Dallas County Historical Foundation. Ryan is a native Texan and has an interest in museum and arts education. She also enjoys playing the harp. **William Stackman** (University of Kentucky B.A., University of Missouri M.S., West Virginia University M.A. 1986) is associate dean for student life and services. He is interested in multicultural education, alcohol and substance abuse, community building, student development, college unions, judicial proceedings, and student activities. He was director of the student union and activities at Tufts University from 1993 to 1997. Before that he was the assistant director of the Illini Union and director of campus programs at the University of Illinois (1989-1990), and the acting director of student life at Temple University (1988-1989). Stackman enjoys yoga, meditation, swimming, walking, running, hiking, reading, and music. He is working on his doctoral dissertation at Boston University. He and his wife, Teri Bump, have a daughter, Laurel. Stackman says he looks forward to "being part of a small but vibrant community."

The following people began their employment with the College last semester. **Anna Agathangelou** is visiting instructor of women's studies. **Taylor Allen** is assistant professor of biology. **Roxane Bartish** is a department assistant III in printing services. **Adrian Bautista** is the intern for Latino and Latina students in the Multicultural Resource Center. **Albert Borroni** is visiting assistant professor of neuroscience. **Michael Bunuan** is the assistant commons coordinator for the program houses. **Roger Graybill** is visiting assistant professor of music theory. **Hilary Greer** is the community service coordinator for the Center for Service and Learning. **Hiroko Hirakawa** is visiting instructor of Japanese. **Keith James** is director of security. **Sandra Kolek** is the economics department secretary. **Christine Kretiv** is the sports medicine intern in the Department of Athletics and Physical Education. **Erika Leppmann** is visiting assistant professor of art. **Olga Markof-Belaeff** is visiting assistant professor of Spanish. **Shon Martin** is a client-services intern in the Houck Computing Center. **William Marton** is the machinist and scientific-apparatus maker in the physics department. **William Marvin** is instructor of aural skills. **Sean McFaul** is the audio intern in the student union. **Amanda O'Connor** is a client-services intern in the computing center. **Malachi Rodgers, Jr.** is assistant director of admissions. **Joshua Schiffman** is the psychology-department research technician. **Ann Sherif** is associate professor of Japanese. **Wendy Smith Heun** is a career advisor in the Office of Career Services. **Heather Smith** is the stacks coordinator and circulation assistant for the Conservatory Library. **Pamela Snyder** is the director of foundation and corporate support. **Christopher Spelman** is visiting assistant professor of classics. **Pam Stawasz** is admissions counselor in the admissions office. **Anthony Vanchu** is visiting associate professor of Russian. **Deidra Wells** is the intern for gay, lesbian, and bisexual students in the Multicultural Resource Center. **Brian Williams** is the intern for African-American students in the Multicultural Resource Center. **Gene Young** is the Edgar Distinguished Visiting Artist in Conducting.

Young

Changes in Appointment

Diane Whitehead transferred February 10 from Facilities Maintenance, where she was a custodian, to the Central Heating Plant, where she is a stationary-engineer trainee. Whitehead has worked for the College six years. On March 10 **Judith Fannin**, library assistant IV in the Main Library, will transfer to the Conservatory Library. She's been at Oberlin since 1973, when she did administrative-assistant work for the Allen Memorial Art Museum. Fannin did similar work for Psychological Services and the art department before joining the library system in 1993.

OPUS . . .

Continued from page 1

cheon group that OPUS will bring greater productivity and efficiencies to the campus and said that the process of the upgrade will "enable us to learn how we work together." Playing with the metaphor of organizational charts, she said the process will help Oberlin employees to draw the lines between the individual boxes in which they so diligently work. In "learning about one another," employees can "enjoy each other." "We can use it to have fun," she said.

After officially announcing the name of the computing project, which was printed on blue helium-filled balloons tethered to all the tables, and revealing the words behind the acronym, ACAC chair Ross Peacock, director of institutional research, used the occasion to spread some fun of his own. Borrowing Facility Planner Leo Evans's knit hat to hold slips of paper inscribed with the names of the luncheon guests, Peacock fished out two names for door prizes. ACAC member Aaron Milenski, senior assistant director of admissions, won an Opus and Bill computer-screen saver, and *Observer* editor Linda Grashoff won a box of Guylian's Opus chocolates.

Monica Wachter, Administrative Computing Services project manager, gave the first public reading of the OPUS mission statement, revealed the timeline for implementation, and announced the OPUS organization structure and OPUS work teams as of February 21. The teams will be fluid—appearing, reorganizing, and disappearing over the three years it will take to put OPUS into place, she said. Information Wachter distributed as handouts will be posted on an OPUS website in mid March.

Observations

Breathless in Oberlin*

(*and Seattle, and New York, and Podunk)

The Aftermath of User Friendliness

By John Bucher

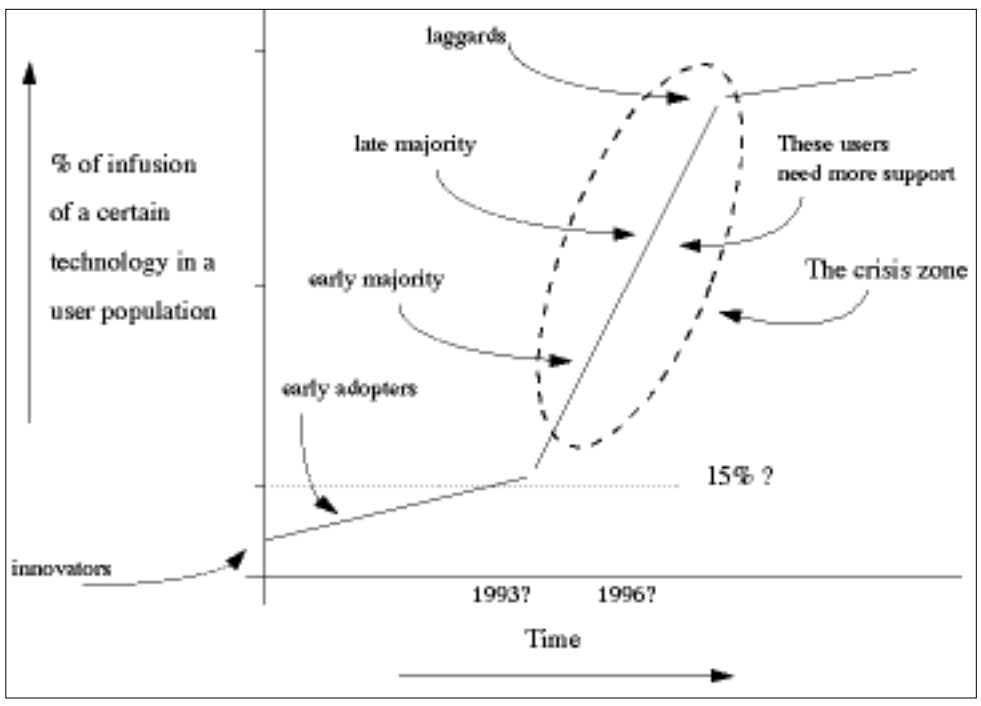
Few would argue that changes in computing and information technology have been anything less than extraordinary over the past 10 or 20 years. Where we once physically traveled to a mainframe computer to use it, we now access computers big and small from points all over the world. Where we once carried thousands of computer cards in trays with us to the computer center, we now use keyboards, bar codes, and voice-recognition software to operate the computer from our offices and homes. And wasn't it just yesterday that we routinely mailed floppy diskettes back and forth to exchange data? We now roll a "mouse" around on our desk and with a few "clicks" transfer mounds of data across the world.

There have been many changes, but little time to catch our breath!

The technological revolution has brought new service demands to all sectors of society. With increased capabilities come increased expectations, and there isn't an industry (in general) or institution (specifically) that doesn't feel the pinch wrought by the new technology.

Those of us who manage information technology (IT) services in higher education have not only witnessed a multitude of technological advances, but we've seen the type and extent of our clientele increase 10 fold, and we find ourselves regularly conversing with new audiences and new partners. Our skills have had to change as well, for the tools we used five or 10 years ago are inadequate for today's learning and research needs.

As we've worked to build a better technological infrastructure, we've created friendlier environments that have invited new users. This progress, coupled with the overwhelming popularity and commercialization of the Internet, has produced situations in which early adopters of the technology have thrived and to which new audiences have come. To paraphrase the line from the movie *Field of Dreams*, "We have built it, and they have come." Indeed, they have come in droves.



After about 15 percent of Oberlin's faculty, staff, and students began to use computers regularly, the rate of others joining them increased rapidly. The phenomenon follows a principle described by Steve Gilbert and Everett M. Rogers.

The Demand for Service: Where Does It Come From?

In trying to describe and understand the seemingly insatiable service demands around us, many higher-education IT professionals have found catharsis in the notion of a "service-support crisis," an idea championed by Steve Gilbert, proponent of the integration of technology in teaching and director of technology projects for the American Association of Higher Education.

Much of what Gilbert describes as a service-support crisis can be shown in a graph that plots time on one axis and the use of IT by the population of its potential users on the other. I've labeled the graph on this page to show the phases of technological infusion into a campus community: early adopters, early majority, late majority, and laggards. (The terminology comes from the work of Everett M. Rogers, a communications researcher who investigated the manner in which communication flows through populations.)

The first stage of the graph represents the innovators and early adopters of a technology (for example, E-mail). This group of users increases at a relatively constant and slow rate. Although they can be quite demanding, early adopters are generally self-sufficient, and need only fundamental help to acquire and use new technology. They do well with informal training (or none at all), and they do well with low technical support. The technology comes easy to them, and they enjoy the exploration.

Citing examples from anthropological research, Gilbert points out that when the infusion of a certain technology has reached about 15 percent of the total population, the rate starts to increase rapidly. There seems to be a great chasm between the early adopters and the early majority—the rising number of users who need significantly more technical support and are less likely to be independent.

The late majority are even more dependent upon service personnel, and for the most part, their use of computers and networks is focused on a particular task. They have little knowledge of how things work behind the scenes. They just (understandably) want the technology to work, and they want it to work right away.

The last portion of the technological-infusion curve represents the laggards, who use technology reluctantly and may never feel good about it. They also need substantial support, but many give up before they accomplish their tasks. Most campus communities will always have some people who either don't recognize a need to use information technology and/or vigorously avoid it at all costs.

Networking: Problem Solver, Problem Maker

The service crisis Oberlin faces today probably wouldn't exist if the campus were not networked. (To be sure, we would have other problems!) The connectivity between computer users and the information the users wish to access is what drives the infusion of information technology. It's the ability to connect to information that makes a desktop computer so valuable, not the processing power of the computer itself. As more and more people get connected to the network, it's more attractive and advantageous for others to be connected. Thus the sharp rise in usage.

The early majority in IT started between 1992 and 1994, when networked applications (such as E-mail, Gopher, FTP, and Telnet) became much easier to use, and robust campus networks were constructed. The rapid growth in the use of IT was driven to warp speed in 1995 when World Wide Web (WWW) browsers, led by the now-almost-forgotten Mosaic, took off, and most campuses got their WWW servers and homepages up and running.

Several other factors contributed to the situation in which service demands are so great. About the time that campuses were getting connected, desktop computers were being upgraded at an increasing rate, and we found ourselves with increasing software and hardware options. Although we'd always had to support some of the new and some of the old, the variability of hardware and software greatly exacerbated the problem of providing good service to everyone.

What Can We Do about Oberlin's Service-Support Crisis?

How should we handle this situation at Oberlin? Do we just grin and bear it? Or can we construct strategies to deal with the rising demands for service? On our campus as well as others, IT capital budgets have risen significantly, and staff resources have also increased. Is it just a matter of getting even more? And more, and more?

Here are some supplements and alternatives to that unlikely scenario.

• **Modify relationships.** Many observers point out that the slope of the curve is just too great to reasonably expect resources to keep up. Although we could imagine a solution in which every user had a personal service technician, even this situation couldn't adequately cover the diversity of computer usage or provide adequate coverage in times of vacation and illness. Any solution must include a modification in the ways that the clients of the service and the people who serve them form their relationship and work with each other.

• **Share information.** I think it's important for us at the Houck Computing Center to document and explain the crisis in IT support to the Oberlin College community. It's easy for all of us to observe the insatiable appetite for IT support. It's also important for computing-center staff to engage the faculty, other staff, and students in the challenge of finding workable solutions. Everyone can help, but only after observing the problems and understanding some administrative details. Since addressing the problems realistically has to involve tough choices (between competing demands for service), technology users at Oberlin need to have enough information to help us with these choices.

• **Think strategically.** Meanwhile, the computing-center staff needs to figure out what we can and can't provide at Oberlin. We can't avoid these difficult decisions. It's important to be both practical and strategic in these choices, recognizing the imperative to move forward with new technologies but not forsaking older and proven technologies just because something fancier has come along.

• **Nurture staff.** Within the center we'll need simultaneously to help the service staff cope with the increase in service demand and keep staff morale high. One of the ways we'll do this is through training and professional development. Another is by demonstrating diligence in shaping services and expectations.

• **Employ students.** Gilbert and others have pointed out the need to use more student staff in meeting crisis needs, and Oberlin has done this for years. Coupled with other strategies, our student help might be utilized even better.

• **Outsource some services.** It has come time to look for commercial sources for some of our labor-intensive services. I wouldn't suggest using vendors for strategic services such as classroom and lab-technology management, but it seems to make sense to outsource the operational functions—such as network installation and some training services—that can more easily be done by commercial companies.

• **Decentralize or centralize.** I'm still wondering how we might rethink the distribution of support responsibilities as we develop our new service strategies. Should we distribute support more widely, or does it make more sense to centralize our services?

One thing is sure. Information technology will play an ever-increasing role in Oberlin's teaching, learning, research, administration, and service. As we at the computing center rise to meet the accompanying challenges, we'll be looking beyond the obvious capital expenditures and considering the best ways to serve and support computer and IT users on campus.

John Bucher is director of computing. He invites opinions about which way Oberlin's computer and IT support should go—toward greater or less centralization. You can give your opinion—on this or other computer-related matters—by sending E-mail to John.Bucher@oberlin.edu or by calling x8700. The online version of this Observer *(http://www.oberlin.edu/~observer/obs_issues.html) has a link to more information about the work of Everett M. Rogers.*