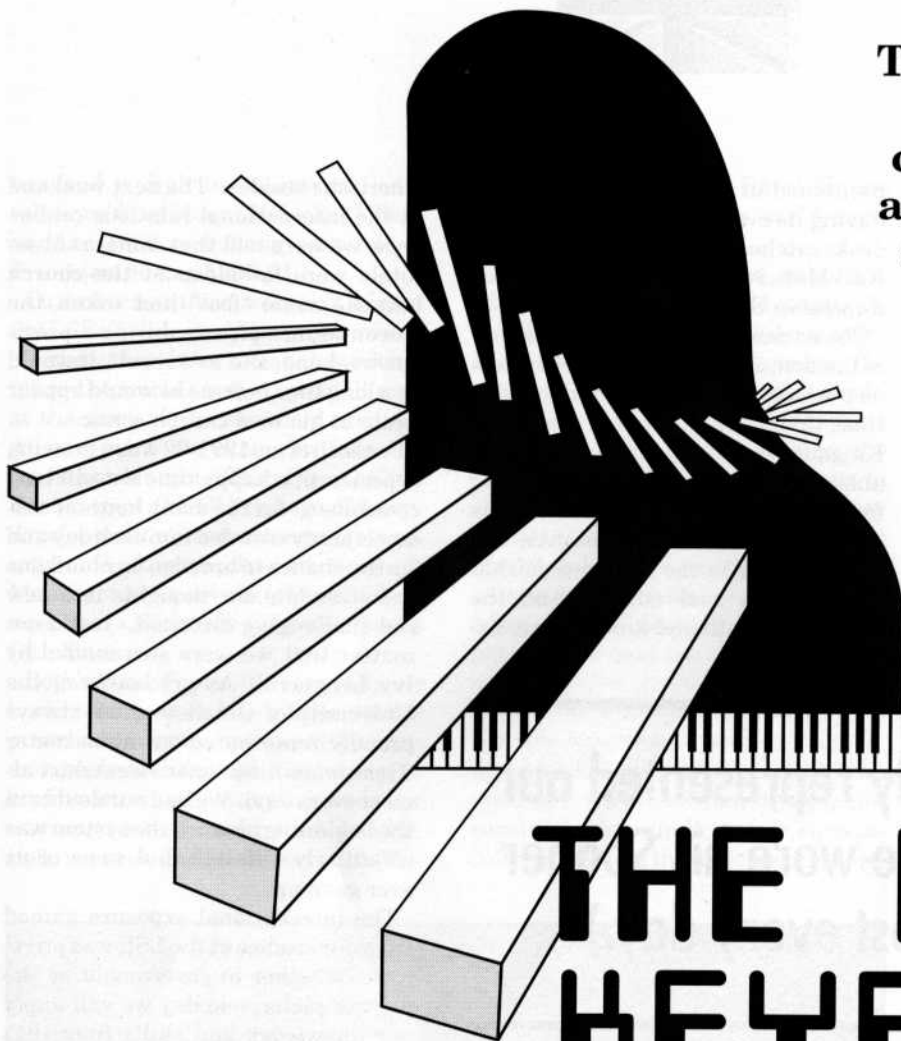


The latest technology
has the new guard
clapping their hands
and the piano purists
shaking their heads.



THE MAGIC KEYBOARD

by Margaret French

Leave it to the inventor to build a better mousetrap. Then leave it to educators to constantly dream up innovations to make the most of the new trap.

In the School of Music at the University of Oklahoma, the current buzz centers around technology-assisted piano teaching, where a battle looms akin to the centuries-old arguments of Biblical versus scientific theories of human evolution. The old guard wants to teach using the piano as we know it—period. Meanwhile the new guard is perishing to utilize the modern technology of computer-generated musical sounds and programs to augment instruction.

The music faculty is divided roughly into thirds on the new technology. One third is “gung-ho in favor of it; a third

could not care less about it, and the middle third think, ‘yes, I eventually will have to do it, but I’m not excited about it, so when the time comes, I’ll have to face it,’” explains E.L. Lancaster, coordinator of piano pedagogy at OU.

The catalyst for the barrage of debate has been the recent acquisition and implementation by the school of the latest in electronic teaching tools. The state-of-the-art Kawai equipment is in place in piano labs and studios in the School of Music.

As the man at the epicenter, Lancaster is walking a tightrope trying to guide the OU discipline into the ever-fluid realm of computer-assisted *everything* in which today’s world operates.

“Many pianists don’t want this to

happen,” Lancaster notes. “They want piano instruction to remain traditional. It’s a scary thought for many people. Some very purist master teachers have been up in arms; they simply can’t accept that anything ever would be there except the piano.”

Piano pedagogy students are studying this new technology in a class called “Current Trends in Piano Pedagogy.” Using digital pianos, synthesizers and sample and wave synthesizers, all of which “manufacture” sounds in combination with a drum machine, they record accompaniments for solo piano repertoire. On one track is recorded the left hand of the piece, on still another the right. The third track contains a drum accompaniment.

All three segments can be played simultaneously or individually, and the



teacher can work with a group or with an individual student—and do so quietly through headphones. The process of dividing and breaking down all the components of a piano piece helps an individual or group of individuals who cannot play very well with both hands together and need more work one hand alone.

One track might contain only the first beat of each measure, so a student playing with the recording is forced to play in time. In harmonization practices, one track contains the melody, which the students can accompany; the accompaniment—on another track—can be played as an illustration. Similarly, duets are available in independent sections, as are multiple piano ensembles.

During the first semester of the course, the class concentrates solely on piano sounds. In the followup semester, orchestrations are introduced to teach the students music notations using a computer program that performs the sequencing. The materials created in this class are used in the piano labs by non-music majors in group piano, music majors for whom piano is a secondary instrument and piano pedagogy students in practice teaching.

“What we’re doing is creating things that will help our secondary pianists who are in traditional class piano. First we learn how to use the drum machine to create percussion backgrounds to go with all the music they play. Then we learn how to use the sequencer and synthesizer to create accompaniment tracks for what they are doing,” Lancaster explains.

The benefits spill over into areas far beyond piano. Composition students are able to hear their works in progress without assembling a group of instrumentalists. Theory majors can play alternate versions of scores or experiment with chords and notes.

In the performance studios, replacing the accompanist becomes a real possibility as libraries of accompaniments are built. When OU obtained

the equipment, any professor of applied music—that is, anyone teaching private lessons—received at least a sequencer or digital piano for their studio if they wished.

“For instance, a voice teacher could take an opera aria and create the whole thing—all the orchestral sounds—and

The benefits go beyond piano. Composers can hear their work in progress without assembling an orchestra.

the student can practice with the orchestra. We’re trying to put this technology through the whole curriculum,” Lancaster says.

It also is possible for the student to *be* the whole orchestra.

“At this year’s national pedagogy conference, there was a composition contest for college students to compose pieces for solo piano,” says the educator. “They have slated a contest for keyboard technology for two years from now. I asked them, ‘Is it going to be solo again? Or will it be for an ensemble?’ They said solo. I asked, ‘What exactly do you mean by solo? One instrument and one performer, or can it be one performer, and they can have as many instruments as they want, pre-recorded and sequenced?’

“It’s going to redefine performance a

little. A soloist probably is going to be a single person who will have many different sequencers and synthesizers and drum machines and whatever else, and everything probably will not be done right on the spot. It could be set up where it would synchronize with video and lights . . . you could be a one-man band but never sound like it. It would sound like a whole orchestra.

“This is just like years ago,” explains Lancaster, “when people had choices of what instruments they wanted to study—the clavichord, harpsichord, forte piano, organ. Now students can decide if they want to study digital piano, piano, synthesizer or electronic keyboard.”

Lancaster assumes a wide availability of choices, and he relishes his role as an educator supplying students with the essential training to make informed choices of the instruments they wish to study. He is ever mindful of their needs and pianistic skills.

“Let’s say a student graduates and is teaching in junior high school and needs to accompany a flute solo but is not really a very good pianist. He can play the accompaniment into the sequencer as slowly as he wants, one hand at a time, one voice at a time, then speed it up for the right tempo.”

Lancaster hastens to add that many students have similar equipment at home, and several secondary schools already are utilizing these components, which he predicts will evolve over time with experience and classroom tests of effectiveness.

The Kawai equipment was the gift of long-time OU benefactor Evelynena Honeymon of Houston, with the assistance of the Kawai Educational Foundation, arranged by its director of education, OU School of Music alumnus George Shaw, ’79 Ph.D. The University of Oklahoma Foundation owns and leases the equipment to the University, which maintains and upgrades it.

Mrs. Honeymon’s late husband, H. V. Honeymon, was a native Oklahoman and owned Honeymon Drilling in Oklahoma City. Mrs. Honeymon’s chil-



Benefactor Evelyena Honeymon and grandson Jay Bartley, '91 B.S., dropped by for a demonstration when the Kawai piano equipment arrived at the music school.

dren, William Bartley Jr. and Jacqueline Bartley Saunders, both are OU graduates. Bartley is an OU Foundation trustee, and Saunders, who lives in Spring, Texas, is the wife of OU graduate John Watson Saunders.

The combined effort of the administration and the music technology committee within the School of Music is responsible for seizing the opportunity to obtain and promote the new technological advancements, thereby keeping pace with and ahead of some other colleges and universities, Lancaster stresses. Nat Eek, the previous fine arts dean, laid the groundwork for the proposal during his tenure, and School of Music director Richard Gipson facilitated the project while he was administrative assistant to the president in 1991-1992. David Woods, the present dean of the College of Fine Arts, is most supportive and is urging unity of the various schools to promote technology in the arts. With the improvements already undertaken with private assistance, Lancaster notes, OU's equipment

equals that of any university.

"I think the University will push ahead," he says. "We do as much as any university, and we're open to more. We are committed to the technology, and in our strategic plan we will continue to look at where technology is going—not just sit back and let it take us along but take the initiative in developing strong teaching applications for its use. I think we are going to pull technology along in terms of education, and it's going to pull us along in terms of product development. Kawai wants us to help them in developing additional educational uses."

Tom Stampfli is administrative assistant to mentor Lancaster, whose former students currently are serving on faculties in colleges and universities in 20 states. Lancaster says he "dreams up what I want to teach, and Tom, who is an expert on the equipment, figures out how we are going to do it."

That is a fairly accurate description. Stampfli works with the equipment in

both the piano labs and the Ruby Grant Piano Pedagogy Resource Center and teaches a class introducing the new technology to students who have not dealt with dedicated and software-driven sequencers, synthesizers and notational transcription programs. He is the resource for the students, charged with configuring the equipment and software, implementing it into the program and orienting the faculty to its use. He also is writing a manual for the class.

Stampfli, who is pursuing a Ph.D. in music education with an emphasis in piano pedagogy, came to OU for its "excellent reputation, which I felt would help make me marketable. The school is nationally acclaimed, especially in piano pedagogy, but the technology was a real drawing card.

"I have talked with some visiting students who were very impressed by the technology. As the general music profession continues to recognize the importance of this new teaching tool, you will see more and more people looking for a school where they can learn to combine the elements of good musicianship and technological proficiency.

"OU may not be on the cutting edge yet, but we have made a significant effort and a commitment to develop this technology. We are on the edge of being on the edge if we choose to be." In this geographic region, he adds, OU is among the leaders by virtue of the amount of equipment in place, which offers easy access to music technology for music students.

The professional preparation garnered through the OU program is proving invaluable for students entering a developing job market. Stampfli hopes his expertise will land him a position in a university program that combines piano pedagogy and technology so he may establish himself as a consultant in that field.

Stampfli's predecessor, 1991 OU graduate Kenon Renfrow, now directs the piano pedagogy/technology department at the University of Miami. Lancaster chaired the Ph.D.

committee of Renfrow, who helped secure the Kawai equipment and then developed a curriculum to teach graduate piano pedagogy students how to use the new methods, the topic of his dissertation.

In his research, Renfrow cites studies involving experimentation with computer-assisted music instruction dating back to 1967 at Stanford University. He notes, however, that most literature associated with the technology relating to piano pedagogy began in the 1980s when early developers—Apple Computer chief among them—led the way.

When Renfrow polled known experts in the field for their input concerning the future, the singular topic on which they all agreed was the necessity for computer and keyboard technology implementation into graduate piano pedagogy instruction. They further concurred that those students not being so trained were not being adequately prepared for the future in their profession.

Renfrow concluded with five recommendations in addition to instruction: the addition of a technology specialist on the music faculty; budgetary allowances for future equipment expenditures; liaisons between the music industry and education to persuade the music industry to supply equipment; the rewriting of future job descriptions of piano educators to include mandatory knowledge of computer and keyboard technology; and intensive training for current pedagogy teachers.

Lancaster cannot predict when the electronics will overtake the present methodology and create a “learn-it-or-be-left-behind situation,” but he feels certain it is on the horizon. In 15-to-20 percent of job descriptions, he is beginning to read “knowledge of computer and keyboard technology desirable.” Stampfli noted three such ads in a current issue of *College Music Society* and recently in *The Chronicle of Higher Education*.

“I think it will be similar to word



TOP PHOTO: Tom Stampfli, standing left, piano pedagogy coordinator E. L. Lancaster's administrative assistant and an expert with the new Kawai equipment, listens with graduate students Ferhiz Irani and Richard McDonald as Julie Sondag, right, plays. This equipment has been installed in Jacobson Hall's Ruby Grant Piano Pedagogy Resource Center. BOTTOM PHOTO: An undergraduate non-piano major, Harrison Jackson, left, gets practice guidance from doctoral candidate Scott Price, right, and Yvette Varela, who finished her master's in piano pedagogy. The new technology is proving a drawing card for outstanding graduate students.



Scott Price, standing at back, supervises a group piano class in a Kawai-equipped laboratory in Jacobson Hall. The technology is beneficial for non-major groups, music majors for whom piano is a secondary instrument and piano pedagogy students.

processing," Stampfli says. "There always will be room for the experts, but everyone will have to know it to some degree, and it will open up a job market for those who are able to interface the traditional with the new."

"What we're trying to do," explains Lancaster, "is prepare students to excel in both the traditional and new technology methods of teaching. We're trying to prepare them so they know enough about technology to grow with it, because it's growing too. Everyone will have to know this to be functional in the musical world. And it might not be that far off."

Having taught piano at the college level for more than 20 years, 14 at OU, Lancaster also is an accomplished performer and well qualified to assess the situation. The David Ross Boyd Professor of Music has received the OU Regents Award for Superior Teaching and an Associates' Distinguished Lectureship. The affable professor has delivered presentations and conducted workshops internationally and was one of 10 OU faculty members who partici-

pated in the statewide leadership development seminar sponsored by the Oklahoma Network of Continuing Higher Education of the Oklahoma State Regents for Higher Education. The seminar was part of a three-year leadership development program funded by the Kellogg, Noble and Sarkeys foundations.

Himself a proprietor of a successful private studio, Lancaster feels that the independent piano teachers also will be facing important and expensive decisions about modernizing their equipment with the new technology.

"It is a significant investment, and it changes so fast," he says. "You buy something today, it's obsolete tomorrow. The investment can be enormous."

As with any rapidly developing technology, gaps in equipment compatibility are guaranteed. Such occurrences have been reduced substantially by the development of the MIDI in 1983. Musical Instrument Digital Interface is a communication protocol for electronic instruments and computers that

allows different brands and models to share digital information that is transformed into musical sounds. Prior to its development, each instrument was an entity unto itself, unable to adequately work in conjunction with other electronic instruments.

The abilities of these instruments can be utilized in a variety of ways. For instance, a single musician can simultaneously control several keyboards, each producing a different instrumental sound from a single keyboard. The ramifications for the application of MIDI to both performance and teaching is revolutionary. Needless to say, MIDI also must be mastered by those who work in the field.

Likewise, the literature supporting the new technique cannot keep up with demand. However, the ever-energetic Lancaster, already a widely published author of piano literature including texts and instruction, is taking steps to rectify the deficiencies with help from Kenon Renfrow.

Capitalizing on the void, the pair is hard at work on a new class piano book directed at the new methodology. "This is like it was early in computers, everyone was writing their own programs," notes Lancaster, his eyes dancing with excitement. "The same thing will happen in our area. The sky is the limit right now. You can do as much as you want to do with it."

And as for the old versus new, that fight probably will continue ad infinitum.

"The new technology doesn't surpass the pianist in the sense that nothing ever will surpass a great artist who sits down at a grand piano and can use that medium to express the inexpressable," Stampfli says softly. "Music is profound . . . beautiful . . . uplifting . . . enlightening. Technology opens the doors for new genres of music, new uses of the keyboard—as the piano opened new doors from the harpsichord back in the 17th and 18th centuries. From a pedagogical perspective, it is not superior, but rather an asset to piano teaching." 