In 1984, when my supervisor invited me into his office to “talk about” purchasing computers for the Johnson County Community College (JCCC) Writing Center (the Center), my only prior knowledge about computer technology came from a month’s stint of working for Lee’s Temporaries one summer between teaching terms. That computer was the size of a small closet and ate data cards that I fed it for two long weeks. I didn’t know what the cards were for and I didn’t want to know what the machine did with them. I just prayed I wouldn’t create a melt down or some other catastrophe. So, my first reaction to my supervisor’s proposal was apprehensive excitement. Since then, I have webbed, netted, and surfed, not to mention sundry tasks without metaphors, only euphemisms.

THE JCCC MISSION

Community colleges have one major universal mission: to serve the community with lifelong learning. Community colleges actively seek out community needs. JCCC prides itself on its institutional research department and its many surveys to gather and analyze information from the Johnson County community (Kansas’ largest county), and from students. No new instructional programs are implemented without assessing needs with a survey. Community college students tend to be consumers demanding the best equipment, quality instruction, and ample resources. Community colleges respond to these demands—putting the “customer” first. In Generation X Goes To College, Peter Sacks (1994, 162) discusses the recent shift of instructor-centered education to student-centered learning. In the community college the focus has long been with the student/community/consumer. As early as 1986, community colleges viewed their role in technology as the means to computer literacy for the community.

To acknowledge its role in helping to keep the community abreast of the changing technology, JCCC revisited its mission statement several years ago. The new mission promotes JCCC as “a comprehensive college committed to serving
the current and emerging needs of the residents of Johnson County for higher academic education, technical/vocational education and lifelong learning, incorporating instructional methods and current technology in the teaching and learning process.” To emphasize the technological focus, the annually revised college objectives show a continued interest in providing current technology and training for JCCC’s employees and students. A suburban community college such as JCCC includes adults hoping to learn skills to get better or different jobs, high school graduates hoping to get into a career or transfer to a university, and high school students earning college transfer credit. Clint Gardner (chapter six) profiles community college students, noting that their busy lives encourage online writing centers. Like Salt Lake City Community College (SLCCC), JCCC’s students are busy, often working 40-hour-a-week jobs, carrying 15-18 credit hours, while attempting to balance those schedules with their families. They want to get through school fast, and as part of that consumer-educated mindset they expect the school to provide services where and when they need them. Consequently, like many community colleges, JCCC provides many services students need to succeed in the form of resource centers (writing center, math lab, learning center) along with a variety of developmental courses. Unlike SLCCC, JCCC, so far, does not provide these online resources—but, who knows what the future holds.

The JCCC Writing Center’s mission is to “promote the college’s mission of lifelong learning and service to the community by providing an environment for nurturing independent writing; valuing progress, not perfection; emphasizing process, not product.” The recursiveness of the writing center services reinforces process writing by providing many resources (figure 1). Emphasizing writers, their skill levels, and assignment goals, tutors guide writers through the maze of choices.

The Center supports the college’s mission by supporting the community through the Grammar Hotline and one-credit flexible, individualized modules which businesses and individuals can use easily. The Center also supports technology literacy by reinforcing strategies taught in the collaborative computer composition classrooms. We like to be innovators often foraging the way for others, and since our financial base is one of the country’s most affluent counties, we can afford technical innovation. JCCC has kept up with the rapidly changing technology, at least with equipment. Within its ranks and trenches, however, the movement has not always been smooth.

In the early years of computers, the Center helped students learn word processing. Then as students came by with more computer competency, staff concentrated on providing programs to help improve the students’ writing skills. The Center now provides internet instruction as more students come online. At the 1997 National Writing Center Association conference in Park City, Utah, I was amazed at how many writing center directors were their colleges’ technology trainer about the internet, web design, and email instruction.
EARLY TECHNOLOGICAL EXPERIMENTS

From the advent of its technology, JCCC has provided the support needed to train staff and instructors. Thus, my first step was to arm myself with knowledge. I took a computer literacy course where I learned something important: first I must decide what I want computers to do for us in our center; then I choose software and hardware to fit those needs. I wanted a management system because our client numbers were climbing, and we were required to keep records and produce monthly reports. I also wanted first-hand knowledge of word processing for our staff and students. These two tasks did not seem too overwhelming or ambitious at the time.
We initially purchased two TRS-80s, one for the management system and reports and letters, the other for word processing. My computer literacy course instructor wrote the record-keeping program we still use. Superscript, the word processing program on the other TRS-80, and Smart, the next program used, were easily replaced by WordPerfect. They were, however, a good training ground for our computer literacy needs. Our tutors and students using the Center always knew the most about the programs’ capabilities and experimented and wrote various mini-programs. It was a simple time.

In 1989 the English Department developed a collaborative computer classroom for teaching composition with a mission to connect computer literacy and writing. Twelve computers (PCs) were provided for twenty-four students with the intention that students would collaborate to learn strategies to improve their writing process. Because many early programs used in the classroom were first tried in the Center, the task of supporting computer instruction also fell to the Center as students and instructors came to practice newly learned strategies and to invent new applications. The Center continues to support students and instructors in the collaborative computer classrooms (now there are two) as they tackle sophisticated applications and computer-assisted writing tasks.

Four Apple Ill’s and more software followed. I would scan vendor catalogs reading the colorful descriptions for software which promised to “improve writing and communication skills” in ten or fewer exciting lessons. Some were good; some were terrible, unfriendly, and often worthless. Even though more programs were available, they were rarely designed for adult learners or were riddled with programming problems, mechanical errors, even wrong information. Others were so difficult to use that they gather dust on a shelf. We could have written our own software, and I even took a course, bought authoring software, and attempted a simple program. I discovered I had better things to do with my time.

Also, in those early years software vendors didn’t allow preview time. You bought, you kept, and many of us ended up with a graveyard of unused programs. In the late 1980s and early ’90s, Project Synergy, spearheaded by Miami Dade in partnership with IBM, was launched to help remedy software evaluation problems. Synergy was sponsored by the League for Innovation in the Community College, an organization founded in the middle 1980s and made up of over twenty of the most prestigious community college districts in the country. From its beginning, this organization has been at the forefront of technology, holding conferences to showcase the latest in classroom innovations. For Project Synergy, representatives from all of the League colleges reviewed and evaluated existing software in three areas: writing, math, and reading—I represented JCCC in the writing review. At least three representatives reviewed over 100 composition software programs, and the results were published and a program written so instructors could give the criteria they wanted in a program; in turn, they would receive a list of software titles which met or partially met the criteria.
Several observations can be made from this project. First, as educators we came together to talk about new technology and how it could be used to teach writing. Second, software vendors and publishers began to listen to and even seek the advice of higher education instructors. The project received so much national attention that the software publishers had to pay attention to what instructors wanted, and they had to allow 30-day trial periods. Third, I realized that using technology to teach writing skills wasn’t going to be a passing phase. Philosophically, I had to come to terms with what place computers had in our JCCC Center.

Other community colleges have not been so lucky. Some have had writing centers evolve out of computer labs, making the computer, not the tutoring, the focus. Also the position of writing center director is highly marginalized in many community colleges, either a part-time or a low paying staff position. Sadly, the turnover of community college writing center directors locally has been overwhelming, and I am one of the few full-time permanently employed community college writing center directors. Sometimes the writing center consists of one person, several computers, and a corner in a library or learning center. In other words, the college support is just not there, making any technological innovation difficult or downright impossible.

LESSONS LEARNED

Thus, I come to my evolving philosophy that has been borne out of my and my community college counterparts’ experiences.

Writing Centers Should Not Be Computer Labs.

Students use the computers to improve their knowledge of writing rules but work with tutors to incorporate and apply the rules to their actual writing. MicroLab, for example, works especially well to connect writing, computer assisted instruction, and tutoring, and over half of the Composition 121 instructors now tie their students’ work to this program by either having all of their students take the assessment or by pointing out frequent errors for students to review in the program. Our English Department has as one of its composition program objectives that students will write standard edited English. Since most instructors do not want to spend much class time reviewing grammar, usage, and mechanics, and since most students are reluctant to use a handbook, the Center provides this instruction. Yet the writing center policy clearly states “No Proofreading,” a rule strictly upheld. Students still (after almost 20 years of marketing our services) expect us to proofread their papers. Computers help us teach and reinforce rules as they apply to the individual writer by using the students’ graded papers to apply computer module exercises to specific errors. Students do not work in isolation on computer programs that may have no bearing on their actual writing.
Students Do Not Use Our Writing Center Computers to Type Their Papers.

Students bring drafts for review and use the computers to revise. Like many colleges, JCCC provides open computer labs for word processing and if students used our lab for all of their word processing needs, we would become a computer lab. We encourage students to bring disks and hard copies, and at a table or on the computer they work with a tutor on ways to revise.

Style Checkers can be used, but with caution.

Too many students don’t understand style checkers’ limitations. Again, tutors help writers understand their revision choices. Most style checkers, as their title indicates, look for ambiguities, colloquialisms, and nuances. Developmental writers grasp for sound structure—organization and development—and style checkers confuse and side-track them.

Computers Will Never Replace Tutors.

The student-tutor interaction is the most important writing center strategy. Computers are only an enhancement to student learning. If a program is used in isolation (from the tutoring), often it has no value. Several years after computers became a real part of our writing center instruction, I noticed that our tutors and instructors put students new to the English language and students with learning disabilities at computers rather than dealing with the students’ problems one-on-one. Day after day these “difficult” students worked in isolation at the computers. They didn’t complain because they believed practicing grammar exercises was a means to learning “correct English.” When I addressed this problem with the staff, they began looking at alternative strategies to work with this student population. Now even when students work at the computers, the Center’s tutors and instructors maintain contact. Students are not allowed to work at length at a computer before actually writing.

Constant Review and Evaluation of Computer Programs is Vital to Quality Instruction.

We have learned that the more interactive the program the better for the student. Monitoring student use and noting improvement in the student’s writing is essential. We have also noted errors in programs, not only programming problems but actual errors in usage or grammar. Not all software is written by educators. I maintain a notebook that describes the various programs and suggests ways to use the software, and I update the book frequently as we see better program applications. One program we didn’t use much when we first purchased it was Blue Pencil, an editing and revision program. An instructor in the center began using the program with one of our module students and discovered its value in teaching editing skills. A grammar program we purchased was pure text with little interaction so we shelved it as we could see no viable application for it.
How and When to Use software is Important to Tutor Training.

Software will go unused if not taught to staff—not only how to use but when and with whom. Several years ago we bought Guides, a program for developmental writers which has tutorials on organization and development of paragraphs, sentence structure, and fundamental writing rules. I then was on leave from the center for a year interning in our staff development program, and when I returned, I discovered that no one used the program. Last year when we purchased 6th Floor Media, I asked tutors and instructors to review the software and consider its applications. Several gave the three-part program cursory consideration; most did not even look at it. This year I have planned several training sessions around the software.

MORE TECHNOLOGY = MORE PRESSURE

We now have eighteen computers available for students, the management system computer on the secretary’s desk, and her own PC for word processing, email, etc. Seven are networked and online, while the others are old and inadequate for anything but supporting software programs incompatible with Windows 95. We have CD players on the Gateways and Power Macintoshes, and one machine has audio and recording hardware to support a program called Ellis, an ESL program that works on written and spoken language skills. Throwing in four Power Macintoshes and one MacIIci reveals that the Center houses a full technology range—obsolete to state-of-the-art.

In the early 1990s the college made a decision to standardize hardware (IBM compatible or p.c.’s) and some software (Word Perfect, Power Point, Microsoft programs). This decision pushed uniformity across campus and made networking easier. By the end of 1995, all full-time faculty at JCCC had computers on their desks and were linked to the college’s networked system. By the end of 1996, all were linked to the world and the writing center’s seven PCs were online soon after.

Although every instructor has a computer on his/her desk, not every computer can handle the information the instructor would like to have delivered. The college works to change this fact—replacing computers every three to five years. However, changes are rapid and many times requested computers, having moved through layers of signatures and paperwork, are obsolete by the time they are approved and delivered. Over five years ago, I asked to link the Center’s computers to the composition computer classroom via a server so that Center programs could be shared with the instructors in the classrooms and so that when the classroom was in use, students and instructors could use the writing center computers to access information found only in the classroom. We are just now being provided that access. In 1995, my office computer was updated to a Gateway 2000 P5-60, and for me it was state-of-the-art. Now my hard drive is full, my memory short, and my frustration growing because I cannot load the 6th Floor Media program, and I often lockup when “surfing the net” for usable websites. I am not due for replacement hardware
until the year 2000. However, I am well aware that I am ahead of my counterparts in many other colleges. I am online and working.

Once we were all online and networked, pressure increased. It wasn’t enough that we had to learn the ups and downs of computers and educational software in a writing center, we now faced college-wide networking, getting online to the internet, and designing web pages. Taking advantage of our staff development training program, in a two-year period, I took workshops and courses in Windows 95, Word Perfect, Power Point (two generations), Excel, the World-Wide Web, Netscape and Netscape Gold, library data-bases, Pine, Microsoft Exchange, Microsoft Scheduler, and Web Wizard to learn how to design a home page and html coding. Some information I retained because I used it immediately and have continued to do so. Other programs I use less frequently and have to relearn each time, which is, to say the least, frustrating.

Programs bought for the Center require my training myself and then training our tutors and instructors. Our tutor training program, certified by the College Reading and Learning Association, includes numerous sessions on computers and writing and their place in a writing center. In the notebook I keep that categorizes the various software programs and describes and suggests ideas for using the software, I have grouped the programs as follows:

- grammar checks and editors, such as Editor, Grammatik, and Correct Grammar
- English as a Second Language, such as Ellis, Toefl, and Tutor Tapes
- drill and practice (which includes not only grammar and mechanics but also sentence structure and paragraph organization and development), such as Learning Plus and Guides
- grammar and mechanics assessments, such as Que Intellectual and MicroLab
- editing and proofreading, such as Blue Pencil, Que Intellectual, Compris, Perfect Copy, and Elements of Style
- documentation styles, such as online handbooks and Citation

Many newer programs are highly developed and require more learning time because they coordinate sound, video, and interactive activities in a networked writing environment. Also, numerous websites are constantly being created with access to grammar and mechanics rules and drills and a variety of writing instruction. What we used to have to either develop ourselves or buy is now available for free. What impact these sites will have on existing software and software being developed is hard to predict, but change is inevitable. We try to provide links to websites or home pages that are especially helpful not only to our students but also our instructors, but the sites change and require constant surveillance. Keeping current is a growing challenge.

We also add email and listservs to the list of growing responsibilities. I feel compelled to be on several campus-wide listservs, our variety of composition courses listservs, a local writing across the curriculum organization listserv, the
National Writing Center Association listserv, and then because I am on several executive boards, those listservs. I turned on my computer one morning after attending a three-day conference to discover I had over a thousand messages. To sort through those messages and answer or note the more demanding ones took most of my day, and I probably deleted two-thirds of them with cursory or no reading. It is not uncommon for me to have one hundred messages per day. I would love to be an active member of the interesting discussions taking place on these listservs, but most of the time I merely interlope, siphon the best of the discourse, print and file it in a thick folder for later reference.

The center’s online grammar hotline must be checked daily. We do not receive many questions because most of our community clients still use the telephone hotline; however, we have received requests to read manuscripts from remote areas like Denmark. This fall, several of our writing instructors have asked their students to email a question to the hotline, an assignment that has begun to fill our mailbox. As the online hotline requests increase, we must monitor the line more frequently, and assigning this task to different tutors each day helps to keep the service active and less burdensome. We still encourage students to bring long manuscripts into the Center rather than our trying to answer complicated questions via the phone or computer. Our view has always been that students should seek their own answers with our guidance. A major part of the tutor training is teaching strategies, such as probing questions and understanding available resources. I would also like our tutors to become part of the writing center tutor listserv, but so far I have found that they just don’t have time to become active in those discussions when we serve so many students.

Our home page—designed, created, and maintained by me—is simple, could provide more information by adding links, and could be more attractive. I have rewritten one of our credit modules—a basic paragraph writing course—and a college programmers is putting it into html code. With the course online, students will be able to work at home or on other computers available at the college or their work, making our course accessible to students who live in remote areas of Johnson County or who are unable to come to the campus for various reasons. They can email drafts and/or questions to us. In turn, we will then need to check those messages daily and respond appropriately. With development and management time, seven other center modules could eventually be online. However, these distance learning classes raise new concerns: Do students have the needed hardware and software available at home? How do we manage the contact time with these students and maintain the courses’ integrity? How do we know who takes the course? How do we deal with state “seat time” requirements? What about copyright laws? How do we manage the work load? Certainly, one fact is for sure; these courses will redefine the instructor’s role in the writing center.

As internet access became available for students on our campus, we discovered more students were coming in at the research stage of writing papers. Even
though the librarians will provide internet and database research instruction in any class, many instructors choose not to use that service. Consequently, students come to us for help, and even though we advise going to the library, we usually walk them though the process at one of our computers. The Center also has become the authority on documenting electronic resources in various styles. We updated our handouts, and internet research and documentation became a part of our tutor training. Furthermore, we developed a handout on how to evaluate resources and distributed it to instructors and students. We have a one-credit module on research skills which we are revising and hope to have online soon.

What does all of this technology mean to the community college writing center? In 1983, *Time* magazine surveyed its readers and concluded that microcomputers would improve the quality of student writing. After almost fifteen years, can we verify that the quality of student writing has increased? Based on the mountains of articles being written and published addressing this and similar questions, I would surmise that many instructors, researchers, and students want some answers and proof that computers do help students to write better. Most of us can point to strong anecdotal evidence of real progression: Computers reinforce the nonlinear, process approach to teaching writing. Writers become better readers of their own work and more willing to critique other writers’ work. Revision has become a reality because students are more willing to change, add, and delete when they don’t have to retype their whole paper. Computers individualize instruction reaching all levels and styles of learners. They can help us handle our growing number of students with learning disabilities. They provide us with another strategy to help us reach students, not by replacing the personal one-on-one instruction but by reinforcing and enhancing it. Computers make more information accessible and provide collaboration networks.

However, the downside is that more information does not necessarily mean more knowledge or higher quality education. Information doesn’t mean anything unless it is synthesized into some real meaning, an act which requires critical thinking or (in Bloom’s Taxonomy language) application, association, and evaluation. The computer, armed with the most sophisticated software, cannot picture the person behind the words. It cannot empathize or read body language. The human connection generated by student-tutor interaction is irreplaceable and no machine can duplicate it. Still as writing instructors and writing center directors, we must know what is available. Then we have to sift it to see what to keep and how to used it in our centers, because each has its own culture. We must continue to share our experiences, good and bad, online and at conferences, with our writing center counterparts and connect with our campus colleagues to stay attuned to the rapidly changing workplace and classroom. We must continue to discuss, debate, and/or question any and all changes which technology brings to education, because the nature of the rapidly moving industry triggers an over-reaction pulling us into a cyclone of hyperactivity before ever asking *why*. 
CHANGING ROLES FOR THE CENTER

In a community college, where one of our major concerns is developing workplace skills, we recognize the importance of teaching critical thinking and vital communication skills. Helping students to evaluate the vast information on the internet has become a new Center objective. Center assistance now reaches beyond its physical boundaries and is accessible to anyone who has a computer and a modem. Many instructors use email and listservs to conference with their students outside of the classroom, and students are becoming comfortable with the internet and online instruction. Technology in the classroom is helping to change the old paradigm of teacher- and subject-centered to student/learner-centered, and that shift is long over-due. Writing centers have always been learner-centered, and, as directors, we know the power of students taking control of their own learning. To that end, we attempt to stay true to our philosophy that personalized instruction is best, and we prefer not to review drafts online. We continue to encourage students to bring their papers into the Center, to ask questions, and to keep control of their own writing. If students want to enroll in our online composition course, we will then encourage emailing papers. The fact that we are trying to provide a variety of services and meet all of the needs of the community supports the college’s and the writing center’s mission.

CHANGING ROLES FOR THE DIRECTOR

Our role as writing center directors is changing, too. Back in 1984 before computers, I spent most of my time working with students, designing hand-outs, and helping tutors devise various strategies for working with our clients. Now, I tutor students rarely because my time is spent evaluating and learning programs to teach my staff, revising our courses to include new software or internet sites, answering email and browsing the listservs, staying familiar with internet research, contacting technicians to repair or correct problems caused by software or student errors, along with the usual tutor training and report writing. I am fascinated by the use of technology—the extent to which it is applied—such as the virtual writing center as Clint Gardner describes (see chapter six), and I wonder how different the online messages are to the person-to-person dialogs taking place in “real” centers. I think about how here on our JCCC listserv messages are consistently being misconstrued. A careless or thoughtless phrase, a sensitive reader, and a general disregard for the diversity and extent of the audience can cause all sorts of problems, such as hurt feelings, angry and hateful rebuttals, and new barriers to open communication. Nevertheless, I like the idea of an online website with resources for instructors who assign writing in their classes and with resources for students who are assigned a variety of rhetorical opportunities.

Recently, as I look at upgrades and new programs, I observe that once again computer software publishers are failing to produce software compatible with the
equipment we are now using, i.e., *Windows 95*. Technical problems are a constant aggravation even though we do have a technical service representative who is easily paged to provide quick assistance. (Although we are constantly fearful that he will find a better paying job off campus.) The Academic Achievement Center, which is in a different program with a different supervisor, has acquired a half-time technical assistant but right now we do not have that option. Still, I try to hold true to my 1984 promise—“Computers will never be the focus of the writing center.”

WHAT NEXT?

Thinking about what the future will bring, I cannot imagine what further impact technology will have on education and specifically on writing centers. I believe being cautious, even skeptical, is in our best interest as are our continued open discussions. Regardless of whether or not a writing center has computer access, technology will touch it. The future probably includes more demands on the writing center to be current with the internet and its many resources, to provide personalized instruction for the distance learning classes, to investigate new software tools for writers, develop online student/faculty surveys, and to serve a growing population in a variety of writing tasks and computer-assisted writing tasks. We cannot deny the general population view that the computer is the common tool of writers, workers, teachers and students.

Writing center directors and writing instructors must address issues surrounding computerized instruction and writing. As a community college writing center director, I know the computer can enhance the writing process, and I know that employers value employees who can write well and who are comfortable with rapidly changing technology. We have an opportunity to reinforce our philosophy that writing is a skill that can be learned, that the role of the writing center is to help writers gain confidence and control over their work yet be aware of the value of having their papers peer critiqued. Then as an enhancement to those services, the Center can teach writers strategies for using their computers as a tool to better writing.

So, what do I conclude from my early experiences with computers? I must continue to spend some quantity (and quality) time with our computers. And then, when my neck starts cramping, sending dull pains down my arms, my eyes glaze, causing me to squint, and my left leg turns to stone out of pure boredom, I should forget about answering all that email, quit fussing with my home pages, and realize I can’t possibly find all of the internet sites on *vegetarianism* or *whatever* nor read the 8000 plus ready-to-use compositions available to JCCC students. That’s when I should turn off the monitor, stretch, and get out in the sun for a nice long walk. Real beats virtual any day—always has, always will.