Lead, Follow, or Get Out of the Way

The new curriculum guidelines from the North Carolina State Department of Public Instruction require that even students in kindergarten become exposed to basic computer skills. These guidelines further require that by fourth grade these students should be exposed to telecomputing--accessing distant computer databases, e-mail, discussion groups, etc. When these guidelines are fully implemented, high school students will have developed applied skills in word processing, databases, spreadsheets, and telecomputing as a requirement for graduation. As these guidelines are going into effect this year, it is not too early to consider the impact of these changes on higher education. It will be all too soon that our incoming students will be required to have skills with personal computers which exceed those of many of us on the faculty.

The impact of the personal computer and related technology is being felt already in our classrooms (or should be). The availability of word processing software with spelling and grammar "checkers" should be assisting our students to spend less time considering the mechanics of writing and to concentrate more on the actual content. Increased access to computer networks should be making a significant impact on the ease of bibliographic and other forms of traditional research. Networking on campus should soon allow for such things as electronic submission of papers and projects; e-mail directly to the professor's desk for questions and problems; and enhanced access to student records for assistance in advising. Multi media applications now offer great possibilities for presenting a wide range of material to students in a non-text format which can be accessed from their (or our) desktop on demand. These and similar developments promise to have a great impact on the nature of what we do as teachers and now is the time we must start to consider how to prepare ourselves to deal with them.

We must start to take advantage of the new technology that can enhance our teaching. It is time to accept the role of the educational facilitator who guides students to self-help rather than holding on to the role of the "talking head" who lectures several times a week. If there is anything one can predict about the future, it is that it will not be the same as the present. We must consider carefully if traditional teaching techniques will offer us the best solutions for dealing with the "Information Age" or prepare our students to deal with it effectively. I suspect that in many cases traditional teaching techniques will fail.

One area of some concern to me is the General Education requirement for computer literacy. My personal impression is that computer literacy has been defined, at least for the basic course, as an introduction to word processing, data bases, and spreadsheets. It is my belief that this definition is rapidly approaching inadequacy, if it is not inadequate already.

While no one should disagree that some understanding of the personal computer should play a major role in the educational experience, I believe that this is too limited for an adequate definition of "computer literacy." Western has already committed itself to becoming fully networked and there has been considerable movement within various colleges and departments towards developing local area networks. The recent discussions concerning a national "information highway" suggest that some understanding of and exposure to telecomputing is fundamental to any currently adequate definition of computer literacy, especially in the light of the State Department of Public Instruction guidelines.

We, as a faculty, must take some rather immediate steps to deal with these realities. First, we must increase our own skills (and comfort) with the use of personal computers and the vast network of available information to which they link us. Second, we must consider the revision of the General Education requirement (or at least the courses used to satisfy this requirement) to address more adequately the nature of computer networking and telecomputing. Third, we must move in the direction of making these tools (for that is really all they are) a more fundamental part of our students' educational experience by requiring that appropriate use of computer skills become a part of all course work. Fourth, we must insure reasonable access to personal computers, terminals, or workstations (with appropriate software) for all students in labs, the library, and in the dorms. Fifth, we must set the appropriate example by taking advantage of these technologies in the classroom, the lab, and the office.

This will not be free. Accomplishing these goals will require considerable thought and expenditure of time and resources. These technologies will require us to rethink much of our current practice as teachers and our approach to the learning environment. Still, the benefits appear to outweigh the obstacles and movement is already underway. The university has seen explosive growth in the number of personal computers in the last few years, and this year the Faculty Center has added a Faculty Fellow for Instructional Technology to assist faculty in using these technologies. Working in this position, I will help develop contacts between faculty who are exploring the educational use of computers by forming an Instructional Technology User's Group. Anyone interested in becoming part of this group can contact the Faculty Center for Teaching Excellence.

The potential exists to improve the quality of our teaching, enhance our research and other teaching-related activities, and to prepare our students to face the realities of the upcoming new century. It is probably true that the "educated" person of the future will be less one who knows a great deal than one who knows how to discover the information he or she needs and can then assemble it in a meaningful way so that it can be understood by others. Personal computers and related technologies offer us much towards providing our students with the background to achieve this new definition of education.

Other institutions are already moving in this direction, but it is not too late for us to take the initiative in this area. It may be something of a cliche, but the future **is** now. We can lead, follow or get out of the way. I would like Western to **lead**.

Richard S. Beam, Faculty Fellow for Instructional Technology

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