

A DELICATE BALANCE

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(1) One of the bitter controversies in today's society concerns the use of computers in the lower levels of our educational system. On one side, computer advocates proclaim that our educational system needs to be recreated and reconstructed with computers so that our children will gain the knowledge needed to survive in our computerized society. On the other side, their opponents vehemently deny that computers are of any necessity in today's educational system and claim that with such a great emphasis on computers, the people of our society will soon become impersonal and antisocial. Which side is right? Should either one of the extremes be employed or should a point of equilibrium be found between the two? The latter would be the best choice. Computer usage in our educational system will serve its best purpose if a common ground, a point of equilibrium, can be found between the two extremes.

(2) Advocates of computer usage in grade schools point to the fact that computers are the foremost component of the recent wave of high technology and claim that this new technology will lead to major changes and advances in the educational process (Evans 12). In the near future, as newer technology is employed and better techniques are discovered for producing computers, changes will develop in computer size and cost. Reducing the size of computers will increase production and lower costs. Computers will become a common and inexpensive commodity in the world market (Evans 12). Advocates claim that with this even greater influx of computers into society, the entire lifestyle of today's society will soon become computerized. They feel, therefore, that children need to get intimately involved with computers in their present schooling so that they will be able to keep pace with the computerized society of the future.

(3) Advocates also point to some of the positive characteristics of computers, namely, their flexibility and large range of task performance. As computers restructure the elementary classroom, their flexibility and range will increase the amount of instruction available to the student. On computers as pseudo-teachers in the classroom, psychologist and computer scientist Christopher Evans says, "Teaching computers will be genuinely smart" (Evans 14). Able to adjust its responses to the student's form of answer, the teaching computer will closely imitate the role played by the teacher.

(4) Skeptics of computer use in elementary classrooms have raised some serious questions for computer advocates. First of all, how will the best methods of providing interactive personal teaching through high technology be determined and developed? (Evans 14) Advocates respond that the surge of money from increased sales of inexpensive, high technology computers will provide funds

for research and investigation of the teaching process. They even claim that through such research, a science of education and an understanding of the nature of learning may be developed, thus further aiding the student (Evans 14). The second problem goes even deeper: since social class barriers play a definite role in learning-rate distinctions, how will computer teaching promote equality? Numerous psychological studies have shown that children from lower class families rank lower on intelligence scales and do poorly in school simply because their lack of financial resources prevents enough exposure to an environment conducive to learning. If this presents a problem in our present society and educational system, what will happen if computers take over the educational process in the future? With no chance to be exposed to computers in their home environment, the lower class students will be lost in the shuffle of high technology and the brighter, higher class children will again be at a definite advantage. Advocates respond that developers of computer programs for the classroom will develop different programs to appeal to persons of different races, classes, or cultures. In other words, programs will be "culturally attuned" to the different needs of each individual (Evans 15).

(5) Computer usage opponents are just as adamant in their complaints about computers as its advocates are in praise of them. For example, advocates claim that with the increased use of computers, teachers would be free to perform other tasks. In response to this, one opponent, a teacher, replies, "So what? Why would teachers want to be freed up to do something other than teach?" (Parsons 46). Computer use will lead, they feel, to asocial instruction. The motivation to communicate with other teachers and students will rapidly diminish as more and more computers are used. Our children will be come objectified, placing value in speed, efficiency, correctness, consistency, and logic rather than in the traditional values of warmth, dignity, truth, emotion and love (Parsons 48).

(6) Additional complaints focus on the lack of useful programs in the educational system today. Many programs are too complicated for the student, programmers failing to take into account the levels of the learning process. Many others do not make use of the learning sequence, relevant cues or item-response patterns (Dean 21). A system of evaluation could be set up to judge the usefulness of certain programs, but that would take up too much time and money. Therefore, opponents claim that computer use is a waste of time, money and talent and has no place in the primary levels of education.

(7) The viewpoints on both sides of the argument are too extreme. But, if a common ground can be found between these two extremes, computers will be able to take their proper place in primary education. Elementary school students do need to be introduced to computers, not so that computers can take over the teaching or learning processes, but so that children will have a basic understanding of and practical skills in such things as

computer applications and programming. Most importantly, students should be taught how to control the computer and not let it control them. Students should also be taught the economic, social and psychological impact of computer usage on both individuals and on society as a whole (Fisher 28). Lastly, computers should not be thought of as a replacement for teachers, but rather as a supplement to the learning process, providing opportunities for individualized instruction and programming work.

(8) Because computers are becoming an integral part of today's society, the younger generations do need to be aware of and skillful in computer use. Dr. Daniel H. Watt, director of the Computer Resource Center at Technical Education Research Centers in Cambridge, Massachusetts, contends that "universal computer literacy is a basic skill of the 1980's and deserves a major role in the school curriculum" (Watt 86). In order to be effective, however, education in computer literacy needs to be continually expanding in order to keep up with the expansion of computer applications in our society. Still, a completely computerized educational system should never be considered. Human interaction and communication need to be maintained in education. A delicate balance must be found so that our children will be able to interact with other human beings and at the same time be knowledgeable in computer usage. Both skills will be needed for a successful future. To overuse or not to use? Both will prove fatal in future generations, producing either a cold, mechanistic society or a functionally illiterate society. Computers will serve their best purpose when they are incorporated into the educational system as a supplement to the learning process.

List of Sources

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