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Computers and Student Services: A Futuristic Perspective

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The current trends in colleges will increase the pressure on Deans and Vice Presidents for Student Services to provide the same or more supportive services for less money. Consequently, many professionals in student services are currently looking for ways to increase the number of services and quality at a reduced cost. One alternative is more extensive use of modern technology.

The search for computer applications in student services has intensified and will probably continue to do so because some of the trends are already apparent. One trend is the enrollment shift from full-time to part-time students. The full-time student (18-24 years old) will become quite rare during in late 1980's. With the substantial increase in part-time students, and a significant decline in full-time students, a larger number of students and a significant decline in full-time students, a large number of students will pay less tuition. Student's services will be provided to the larger population, but with a smaller budget. The shift toward older students will demand extending service hours plus offering different services to meet the older students' needs.

Student services budgets are typically more susceptible to cuts during tight budgets because the level of "counseling" performed does not relate directly to enrollment. Personnel costs are by far the greatest single expenditure in student services. As the number of students

increase, increases in staff are often needed. However, with the national trend of tight budgets, future budgets will probably decrease, causing staff cuts despite increased needs. Even for budgets which remain the same, as salaries increase each year, fewer employees can be hired, resulting lay-off decisions. In addition, as inflation eats away at salaries, industry may attract the more qualified personnel because of low salaries and unrealistic work-loads in college student services. As a consequence, greater pressure will be applied to the student services to increase the productivity of each student service professional.

Toffler (1980) in his book, *The Third Wave*, describes the future impact of microcomputers on our entire society. He describes the first wave as agriculture, the second as industrial, and the third as the space age of telecommunications. He believes microcomputers will be in every home. In fact, he estimates that "almost 1/5 of the labor force will stay at home and be gainfully employed in their electronic cottages" (Toffler, 1980). Interactive television linked to a personal computer will allow customers to see products on the TV and will allow them to make purchases from home as one does now with a Sears Catalog. According to Toffler (1980), the two primary interactive systems are called videotex and teletext. Videotex uses existing phone lines for transmission of pictures and data to and from the personal computer. It is inexpensive and easy to set up but relatively slow, especially for graphic information.

Teletext uses specially equipped television sets and broadcast signals to send data. When teletext is combined with cable television, communication of data and pictures is two-way. In this manner, both the television and personal computers can become interactive. Because of this, Toffler (1980) believes that a great deal of education will take place in the home and not in the typical classroom. With the recent development in microcomputers, Toffler (1980) believes we have already begun the "third wave" and that vast and sweeping changes will occur in our society because of it.

The one axiom which can be gleaned from *The Third Wave* (Toffler, 1980) is that use of technology will increase. If technology continues as it has in the past, technology will be much cheaper and will be easier for the non-technical person to use. As this happens, professionals in

student services will slowly become more aware of the computer's potential and with increased budget pressure, will begin to use computers in service areas never before through possible.

Yet there is a considerable reluctance to change. This reluctance seems quite strong in student services. It stems from many sources. One reason is that student services professionals now in leadership positions have received most of their training in counseling and in interpersonal skills. Computers are foreign to many student services personnel, and the unknown is often frightening. This fear manifests itself in a resistance to change, but will gradually decrease as the microcomputer becomes more pervasive in homes and schools.

Student service personnel also tend to believe academic advising, orientation, career counseling, and transfer counseling can only be done with human interaction. It is interesting to note, however, the level of human interaction has been decreasing in each student services area. Initially, one counselor to one student was the modus operandi. Then as budgets got tighter, most of these services were offered in a group or workshop setting. This increased the efficiencies and effectiveness of each student service professional. With increased pressure to find more efficient ways to deliver these services, student services personnel will begin to critically analyze the components of each process in order to develop computer programs which might address 80 percent of the questions most frequently raised by students. The computer can then make a referral to a counselor for the remaining 20 percent of the answered problems. In this manner, only the harder questions and more serious problems are brought to the counselor.

If Alvin Toffler is correct about the usefulness and pervasiveness of microcomputers and if enrollment shifts are reduced budgets continue to increase pressure to choose between offering current services at reduced quality or eliminate the service, professionals in student services will find ways to computerize aspects of most students support service. At first, the shift will be gradual (as it is now) and then it will suddenly take off. When this occurs, the following extreme scenario might describe how computers would be harnessed to provide future student services.

Futuristic Possibility (A Radical Viewpoint)

Admissions. The admissions function has already begun to shift from the one-on-one counseling process to a function of marketing. Marketing is neither effective nor efficient without the use of the computer. Targeted mass mailing from computerized tapes is certainly one example. However, in the future, interactive cable teletext might provide a more effective communication medium. A program could be available in the host computer which would interact with the use in describing the reasons for coming to one particular college over another. A short 10-15-minute movie might attempt to answer 80 percent of all questions. This would be followed by a selection of questions (i.e. menu) that can be asked. The response could be a visual one on the screen, a written one on the printer, an oral one through the speakers, or all forms. The program would only ask pertinent socioeconomic and ethnic data of the respondent. At the point the college would know who has expressed interest. Periodically, additional information would be televised to initial respondents as is done now with targeted mass mailings. As new academic programs are added or others changed, updating the computer would be quicker and less expensive then reprinting view books, etc.

Marketing research could be more timely and accurate with interactive cable teletext. This constant feedback can provide better information about why students decided to come to a particular school. With more knowledge about the decision-making process, the marketing approach can be constantly adjusted to maximize results.

For open door admission programs, the interactive cable telecast would be helpful in testing and program placement. Standardized Math and English placement tests could be given to the prospective student in his/her home and scored immediately by computer. Even writing samples can be done through the keyboard. Spelling and grammar can be scored by computer. Once scored, the program placement and the admission notification can be televised back to the prospective student. Simultaneously, the data would be stored and available to the school to determine course demand.

Freshman/Transfer Orientation. Orientation for new students is a repetitive function which can be structured to answer most questions students normally raise. A short presentation followed by a question and answer session could be directed to the home of each new student

via cable teletext. The student would be given a selection of questions. Upon choosing one, a mini presentation given a complete answer would appear on the student's home TV screen. The student could then either ask more detailed questions on the first subject or return to the original menu. If the student asked a question for which the computer was not programmed, the questions would be routed to the admissions office so a unique transmission could be made back to the student who received the message by turning on his/her TV. New students might be required to watch the orientation. The computer would know who has not watched so follow-up can be done.

Financial aid. Since cable teletext might become an alternative means of filing a Federal or State income tax form, the computer would already contain income information. Once the student is admitted, the parents would provide a release to the school via teletext so the school could use the data as the financial aid application. The computer could then calculate the family contribution and based upon their financial status, combine grant, loan, and work into a financial aid package. The award letter would be sent to the students home TV and accepted via the cable teletext. Awards could then be credited to the school for tuition, and a cash disbursement could be made directly to the students' account, without writing a check.

Academic advising. Often, a new student who does not have clear educational goals should take general introductory courses. Student with clear educational objectives might start by taking courses in their major area. In either case, a short screening instrument could be used to identify the degree to which new students' goals are defined. This could be done and scored instantaneously via teletext. The results could be used for recommending what courses to take.

Continuing student could also be required to sign-on to the advising session via teletext. It could identify what courses have been taken and based on the student's major, what courses the students' needs to take and in what sequence they should be taken. A menu should be available on the screen which lists 80 percent of questions students ask relative to their major. More specific questions could be routed electronically to the department chair for an answer.

Registration. Once the student has been admitted and has gone through orientation and advising, the student would be allowed to register. Since many (or most) courses could be

offered via the cable teletext, time and location would no longer be considerations of schedule development. The student would select the courses and authorize a transfer of funds from his/her banking account to the school. Once the school has received payment, the courses would be available on the student's TV. (Note: that with this registration method there would be few closed courses since capacity is not predicted up classroom size). Each student would receive the lectures or take the tests at his/her own pace. Lectures would be repeated until content was mastered. Once the course was completed, the grades could be posted to the transcript and disclosed to the student via cable teletext. Typical semesters of 14-15 weeks might disappear, and registration would become a rolling process based upon when the student completed each course. At the same time, a student wanting to withdraw from one course to add another could do so at any time since all courses reside in the computer and require a minimum of faculty intervention once they are set up.

Career guidance. Already there are well-researched computer programs which interact with students and assist them to clarifying their own career choice. Such programs should be made available at home through cable teletext. A vast amount of career information would be available via the TV rather than in a myriad of catalogs and texts. This increases the student's accessibility to the data, yet it makes it easier to update the information via a computer rather than by reprinting books.

If the interaction with the computer reveals that the student needs more help, the computer might then refer the student either to a career counselor or to the series of life skills courses.

Transfer counseling. Matriculation agreements between schools change frequently. Often the only alternative is to contact the admissions office of the school to which the student hopes to transfer. This is expensive and time consuming. However, if most schools had their requirements on a time-sharing network, current data could be readily available to transfer counselors. As the requirements change, disseminating such changes among most schools would be momentarily accomplished via the computer.

Information as to what is accepted at the school should be available via the cable teletext. Such information would minimize counselor intervention and would reduce the loss of credits students often face when transferring.

Job placement. Both an applicant pool and a job bank can be used as a source for computerized matching application to jobs. Registration for the placement service and job referrals would be made available to each student's home via cable teletext. Results of referrals could also be communicated by the student back to the place service via the computer.

Student services reevaluated. The extreme scenario portrayed above may or may not become reality. Personnel services without personnel degenerates into mechanical method information dissemination. The computer can assist student services professionals, not eliminate them. Just how far students will allow computers to go, remains to be seen. Value judgements will be needed to specify the line of demarcation; beyond it, computers are no longer helpful but become impediments to providing student assistance.

Exactly where the future dividing line might be is not apparent now. However, it is now that the student services professional should start to wrestle with some of the issues described. When is human action needed? Desired? Required? What should never be computerized? What undergirding principles can be applicable to defend these answers?

Striving to answer these questions will go a long way to prepare student services for the eventual budget cuts and to avoid blindly adopting computer solutions for everything.

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