The Computerized Vocational Information System (CVIS) at Oakton Community College (OCC) is an integrated set of guidance systems designed to help students expand their awareness of the various career and educational opportunities available to them. Terminals are available for student use every weekday from 8:30 a.m. to 10:00 p.m. The Career Exploration subsystem of CVIS permits a student to explore and receive specific information about 450 occupations. Three College Planning subsystems provide general and specific information about various four-year colleges and their programs. The Technical Specialized School subsystem enables the student to identify local technical and specialized schools. The Apprenticeship subsystem uses a tutorial approach to inform students about apprenticeships in general and about local apprenticeship opportunities. The Employment Opportunities subsystem provides computer assisted instruction to inform the student about the process of making decisions related to job selection. A Military Information subsystem provides students with a teaching script about draft obligations, deferments, enlistment, military academies, and ROTC units. The Transfer Planning to Illinois Schools subsystem assists students in planning their OCC programs. Results of various surveys indicate that CVIS is well-received and well-utilized by students and counselors alike. (DC)
OAKTON COMMUNITY COLLEGE

COMPUTERIZED VOCATIONAL INFORMATION SYSTEM

1974 - 75

James E. Bush
February 4, 1975
The basic purpose of CVIS is to provide students with a sophisticated tool with which to explore information about self, occupations, and educational opportunities. The intent is to present accurate data in an interactive, interesting way.

Students interact with the computer by means of online display terminals. These devices display messages on a screen to which the student can respond by entering information on a keyboard. This "conversation" is carried on by the transmission of data from the terminals to the computer and back in seconds.

CVIS is a program designed to help students expand their awareness of the various career and educational opportunities available to them. It does not make decisions for students but provides them with current and meaningful information to help them make decisions.

The CVIS program is an integrated set of guidance systems. The following is a brief review of the current subsystems. The CAREER EXPLORATION subsystem permits a student to explore and receive specific information about 450 occupations. After having reviewed his test scores, interests and cumulative grades, the student is invited to specify a level of training and an interest field from a two-dimensional matrix modeled after the classification scheme developed by Anne Roe (described in her book, Psychology of Occupations, 1957, p. 151). These specifications of level and field are used to generate a list of occupational possibilities which are presented for the student's consideration. He also receives a message that assesses the consistency between his abilities and his occupational choices. The student can obtain 50 and 300 word definitions (prepared by J. G. Ferguson Company) of any of the occupations on his list. He is also referred to other
sources of career information.

The college planning segment of CVIS is divided into three subsystems. COLLEGE PLANNING is composed of ten scripts that pertain to the college admission process. Topics covered include entrance requirements, admission procedures, college costs, financial aid, etc. COLLEGE SELECTION is essentially a set of logic modules that enable the student to select a subset of colleges on such dimensions as major, size, location, cost and selectivity. Data are stored on over 1500 four-year colleges. The SPECIFIC COLLEGE INFORMATION subsystem allows the student to retrieve information about any of the colleges in the system. Three types of displays are presented—entrance requirements, majors offered and general information about cost, size and location. The college data file is updated annually by a direct mailing to college admissions offices through the CVIS Consortium.

The TECHNICAL AND SPECIALIZED SCHOOL subsystem is analogous to the four-year college segment of CVIS in that it enables the student to identify a subset of schools that fit the student's specifications. The CVIS data file for this subsystem includes 150 technical and specialized schools within a 50-mile radius of Chicago.

An APPRENTICESHIP subsystem uses a tutorial approach to inform students about apprenticeships in general and provides specific information about local apprenticeship opportunities.

The EMPLOYMENT OPPORTUNITIES subsystem provides computer-assisted-instruction to inform the student about the process of making decisions related to job selection. One component is a job selection game based on fifteen variables that might be considered by the job-seeker. This subsystem catalogues local companies by the entry jobs they offer.
The student is invited to identify a Roe interest category and then is given a listing of employers who offer entry opportunities in that category. This system is currently being localized.

A MILITARY INFORMATION subsystem provides students a teaching script about draft obligations, deferments, enlistment, military academies, ROTC units and the like. This subsystem is being rewritten by CVIS Consortium.

TRANSFER PLANNING TO ILLINOIS SCHOOLS is a locally developed subsystem. It assists students planning their Oakton program according to the requirements of several colleges in Illinois. The subsystem currently contains information about general education requirements and, in many cases, course equivalencies for the following institutions:

- Northern Illinois U.
- Eastern Illinois U.
- Chicago State U.
- Southern Illinois U.
- Northeastern Illinois State U.
- Roosevelt U.
- Western Illinois U.
- University of Ill.-Urbana
- De Paul U.
- Illinois State U.
- University of Ill.-Circle
- Loyola U.
- Sangamon State U.
- Governor's State U.
- Bradley U.

FINANCIAL AIDS subsystem produces a list of possible financial aids to fit a student's situation based on responses to 15 questions.

OAKTON PROGRAMS is a locally developed subsystem. It provides information about career programs at Oakton Community College and indicates key courses related to transfer majors.

In our efforts to implement CVIS at Oakton the following aspects were taken into consideration:

1. Location and availability of CVIS terminals
2. Ongoing evaluation.
3. Leadership given to projects.
4. The quality of technical operation.
5. Orientation of students to the system.

6. Amount of support given to the system by Student Development staff, administrators and data processing personnel.

7. Integration of CVIS into Student Development program.

8. In-Service training program for Student Development for Student Development peer advisors and teachers.

9. Usefulness and quality of the text and data files.

10. Localization of system.

Two CVIS terminals are centrally located in Building #4 near the Student Development Office, Counselor Offices, Student Placement and the Career Information Center. The terminals are available for student use Monday through Friday 8:30 a.m. - 10:00 p.m.

The quality of the technical operation is important for successful student interaction with the computer. This involves student operation of the cathode-ray terminal, the technical aspects of each subsystem and the display messages.

Since one of our aims was to develop a system which would be operated by students themselves, it was essential that the system be easy to operate and understand. A good deal of time and energy was spent developing instructions, writing new script messages and, changing response frames.

Student response to the evaluation questionnaire indicated that 86% found the CVIS terminal easy to operate. Only 10% indicated a little difficulty, but easy to operate.

It did not take very long for students to discover CVIS. The cables that connect the terminals with the computer were finally strung in December of 1973. Two terminals were then placed in Building #4. Although we were still in the final stages of updating and localizing the text and
data file there was a steady stream of students at the terminals. Students continued to use CVIS during the Spring semester. Their feedback served as valuable input for the modification and localization of the system. Students were introduced and given an orientation of CVIS during the Summer Life and Career Planning Workshops.

Members of Student Development and various other faculty members were consulted throughout the planning and implementation stages of the development of the system. Other faculty members were introduced to CVIS during Faculty Orientation, Staff Development modules and informal meetings. CVIS became a valuable resource during faculty academic advising. The evaluation questionnaire seems to indicate a wide range of sources of referral to CVIS. Surprisingly 30% indicated that they heard of CVIS through other students. Ninety-eight percent indicated they would recommend the system to a friend.

CVIS is designed to provide students with up to date and useful information necessary for intelligent college and career planning. The script and data files of the CVIS subsystems have been continually evaluated. The system can be updated or modified on-line. As indicated earlier some subsystems required a good deal of local data collection while others needed script modifications. This process required the coordinated effort and support of several Oakton staff members. Leadership for the development of the informational aspects was provided by Jim Bush. Jane Alt provided considerable assistance in the development of the Transfer Planning and Oakton College subsystems. Gerry Aiuppa, Student Placement, served as a resource for the Employment Opportunities subsystem. The technical aspects were coordinated by Gary Saben with Janet Tamer and Judith Hoe providing programming assistance.
The CVIS Consortium has been the source for updating general subsystems such as Career Exploration, College Selection and Military Opportunities. The Consortium is a national organization of CVIS users. Its membership includes community colleges and school districts in Colorado, Texas, Florida, Louisiana, California and other parts of the United States and Canada that have begun to integrate CVIS into their data processing systems or are planning to do so. The purpose of the Consortium is to discuss common problems such as future updating of common data banks and the sharing of successfully converted software. It has made arrangements with the American College Testing Program for updating the college data files and the J. G. Ferguson Company to update the Career Exploration subsystem.

Student response to the questionnaire indicated that 78% found the information "helpful" with 48% indicating "very helpful". No students indicated the information was not helpful. Eighty-four percent of the students highly rated the quality of the information. No students indicated that the information was of poor quality.

Another aim was the integration of CVIS into the total Oakton Student Development Program. A survey was conducted of Student Development faculty members, as well as, other Oakton faculty members who were familiar with CVIS either through the ongoing evaluation process or academic advise-ment. All those surveyed strongly agreed that CVIS should continue as an integral part of the Student Development Program. Over 85% strongly agreed that:

1. They are comfortable/confident in referring students to use CVIS.
2. CVIS is a worthwhile aid to students in providing information.
3. CVIS facilitates students to explore occupational and educational information.
CVIS is providing Oakton Community College with significant benefits. These include:

1. The capability to store and instantaneously retrieve occupational and educational information.
2. The capability to bring together occupational facts as they relate to student's interests.
3. The capability to simulate financial planning for college education.
4. The capability to simulate the job selection process.
5. The capability to deal with occupational information, school and college selection data, at the same time with several counselors and students.
6. The capability to sort quickly through a mass of college data to seek out those schools which meet the student's specifications such as major, location, cost, size, control, etc.
7. The capability to localize the computer based data to meet the needs of Oakton students.

The implementation of CVIS at Oakton Community College has had a solid beginning. It has become a positive aspect of our career guidance services. Students now come armed with better information and ask more penetrating questions. CVIS relieves more of the routine career orientation responsibilities but increases the demand and time for advanced counseling functions.
CVIS STUDENT QUESTIONNAIRE

Your response to the following questions would be appreciated.

1. How did you hear of CVIS?
   - 16% Counselor
   - 18% Peer Advisor
   - 18% Friend
   - 18% Teacher
   - 30% Other

2. Which program(s) did you use today?
   - 50% Transfer Planning - list schools
   - 10% Career Exploration
   - 28% College Majors - list
   - 10% College Selections
   - 2% Apprenticeship Program

3. Did you find the information helpful?
   - 48% Yes, very helpful
   - 30% Helpful
   - 22% Of some use
   - 0% No, (please explain)

4. How would you rate the quality of the information you received?
   - 52% Very good
   - 32% Good
   - 16% OK
   - 0% Poor
   - 0% Very poor

5. Did you have difficulty operating the terminal?
   - 86% No, instructions were clear
   - 10% Little difficulty, easy to operate
   - 4% Some difficulty (please explain)

6. What other information would you like to see on CVIS? tuition; more college majors, out of state universities transfer info; more occupational info.

7. Would you recommend CVIS to a friend?
   - 20% Very strongly
   - 78% Yes
   - 2% Maybe
   - 0% No
   - 0% Definitely not.
# CVIS Program Usage

3/28/74 - 11/14/74

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<th>Code</th>
<th>Description</th>
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<td>1100</td>
<td>Career Exploration</td>
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<tr>
<td>1326</td>
<td>College Selection</td>
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<tr>
<td>521</td>
<td>College Majors-Key Courses</td>
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<td>272</td>
<td>Spec. &amp; Tech. Schools</td>
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<td>150</td>
<td>Apprenticeships</td>
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<td>Financial AIDS</td>
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<td>790</td>
<td>Transfer Planning</td>
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<tr>
<td>88</td>
<td>Military Information</td>
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<tr>
<td>380</td>
<td>Employment Opportunities</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong> 4,772</td>
</tr>
</tbody>
</table>

University of Calif.  
Los Angeles  
Apr 2 1976  
Clearinghouse for Junior Colleges
1. I am comfortable/confident in referring students to use CVIS
   - Strongly Agree: 85%
   - Agree: 15%

2. CVIS is a worthwhile aid to students in providing information.
   - Strongly Agree: 85%
   - Agree: 15%

3. CVIS facilitates students to explore occupational and educational information.
   - Strongly Agree: 85%
   - Agree: 15%

4. CVIS should continue as an integral part of the Student Development Program.
   - 100%

5. The information in the following CVIS programs is meaningful and useful:
   - Transfer Planning: 75%
   - Career Exploration: 25%
   - College Majors - Key courses etc.: 60%
   - College Selection: 40%
   - Specialized & Technical Schools: 50%
   - Apprenticeship: 20%
   - Apprenticeship Selection: 20%

6. What suggestions do you have for improvement, modification, and expansion of the CVIS program?