TECHNOLOGY SUPPORT PERSONNEL

The following operations will have a small district staff with larger facilities and support staffs on each of the three campuses.

<u>Instructional computing</u> is a new function. It requires laboratories, lab-classrooms, Smart Classrooms; equipment rooms for servers, patch panels, concentrators, and other networking equipment; technician work and repair areas and telecommunications and electrical wiring and closets; faculty training areas; production areas for multimedia, academic web pages, and classes taught on the Internet; and administrative offices, faculty offices, and conference rooms.

There will be a large general-purpose laboratory on each campus complemented by lab classrooms and specialized laboratories as needed. Moreno Valley and Norco recently installed such labs as part of their secondary effects funding. On the City Campus, the first floor of the Business building serves this function on an interim basis. Available space is limited and will remain so until the new Library – Learning Resources Center (LLRC) is constructed in 2001. At that time, the LLRC will have a computer commons, open labs, and learning resources labs. Instructor assisted labs will be housed on the third floor of the present library building supported by the Office of Learning Technologies. Teaching (computer) labs and other specialized laboratories will be housed adjacent to their academic departments.

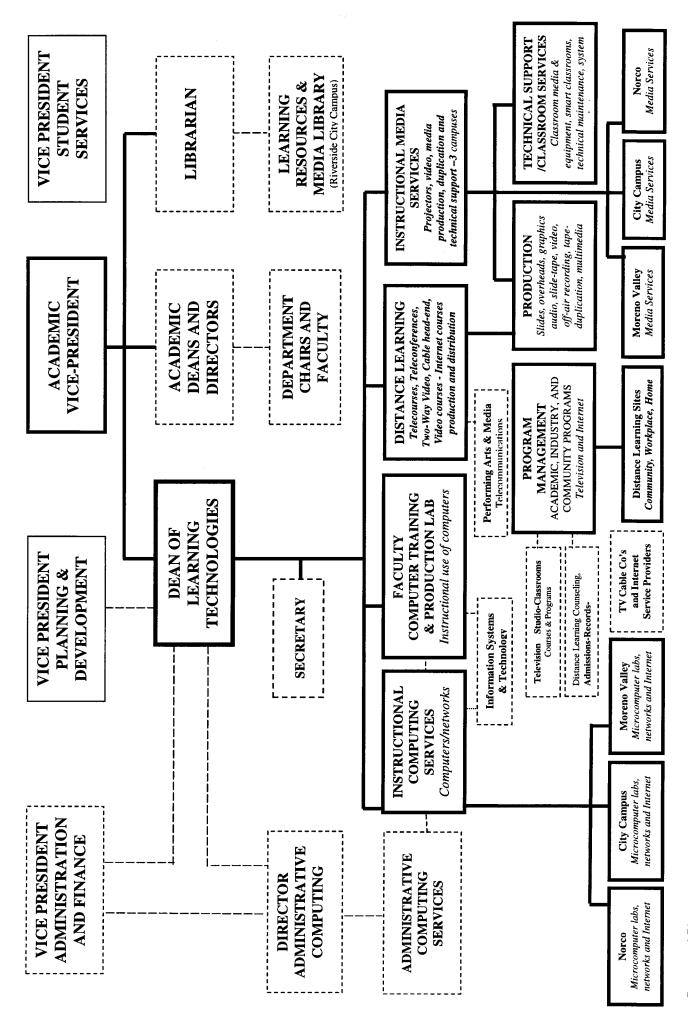
Distance Learning is an area projected for rapid growth. It uses communication technologies to reach learners who cannot attend on-campus classes at the time they are scheduled, or who for reasons of time and distance do not have access to a college education. Distance learning includes: 1) Internet based programs developed in conjunction with the instructional computing unit; 2) television based programs that broadcast on-campus classes and/or combine classes using two-way interactive video; and 3) Internet and/or television based classes from other educational providers.

Distance learning requires studio-classrooms for program origination and teleconferencing, and smart (media) classrooms for reception of live and recorded courses from other organizations. Studio classrooms will be supported by camera control rooms and a master control center for recording, playback, and routing television signals to broadcast transmitters, cable companies, telephone companies, and Internet Service providers. There will be lesson preparation rooms, rehearsal rooms, administrative offices, faculty offices, conference rooms, and storage areas for classroom sets, props, backgrounds, and equipment. All classrooms will have conference telephones and digital video projection displays.

Television and Internet classes will be broadcast from the second floor of the present library building when the new LLRC building is constructed. In the interim, videotaped classes will continue to be produced in the Telecommunications TV studio. One classroom in the Instructional Media Center has been converted for interactive video and teleconferencing.

<u>Instructional Media Center</u> (IMC) will provide production services, media distribution, campus-wide classroom support, technical maintenance, and support for special

TECHNOLOGY PLAN FOR THE RIVE. DE COMMUNITY COLLEGE DISTRICT Proposed Plan of Organization for Learning Technologies



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provides production and duplication services for graphics, audio and video. The IMC currently provides technical support for two-way interactive video. The IMC manages a video library and catalog that is scheduled to become part of the new LLRC in 2001 and a learning resources center that is also scheduled to be part of the LLRC.

1.3 Projected growth. Personnel levels will be based on priorities of the college and funding. For example, faculty training is top priority to ensure effective use of computer laboratories and networks. A needs assessment will indicate the level support needed. Some personnel requirement will be formula driven. For example, one technician is needed for each 300 networked computers to ensure an acceptable quality of service.

There is a relationship between equipment and personnel funding. An interactive computer model was generated using Excel to determine equipment and support costs for computer labs. The goal was projected to have one computer for every *four* Full Time Equivalent Students (FTES) within five years. The 4:1 ratio was chosen because this is the goal of K-12 schools in the State of California. Five years was chosen because this is the life of a computer before obsolescence. Based on this data, 20% of the computer inventory will need to be replaced each year to ensure acceptable lab operation.

The models presented below do not account for increase in the student population. The first part of the model is to establish the projected inventory. By eliminating computers already obsolete, the first five years for city campus, and three years for Moreno Valley and Norco, are needed to build the inventory base. Beyond this point the annual purchase is equal to the number of computers removed from inventory. Growth can be expected on all campuses, and will result in a proportional increase in the number of computers listed below.

Number of Computers to Achieve a Computer:FTES Ratio of 1:4.														
Year	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	Annual Purchase
City Campus	220	770	1320	1870	2420	2750	2750	2750	2750	2750	2750	2750	2750	550
Moreno Valley	240	370	500	630	650	650	650	650	650	650	650	650	650	130
Norco	280	430	580	710	750	750	750	750	750	750	750	750	750	150
Total Inv.	740	1570	2400	3210	3820	4150	4150	4150	4150	4150	4150	4150	4150	830

RCCD is moving from support of an inventory of 740 instructional computers in 1997 to 4,150 in the year 2002. A graph of the above table illustrates the time and number of computers required to achieve the desired Computer to FTES ratio. Whether available budgets can sustain this rate of growth has yet to be explored.

Number of Academic Computers by Campus (not adjusted for growth in enrollments) 3000 2500

Cost of Installed Computers							
Purchase Price per Pentium computer	\$3,106,0	\$2,577,980					
Specialized computer equipment (Mac, Silicon Graphics, etc) calculated at \$257, 5% number of Pentiums purchased and 10% of cost							
Network & server cost per computer	1000	Total network and servers	\$830,000				
Electrical wiring	100	Total electrical	\$83,000				
Software and licenses	500	Total software and licenses	\$415,000				
Internet Services	150	Total Internet services	\$124,500				
Faculty Training & Production Lab	350	Total faculty training / production	\$319,550				
Furniture and installation	250	Total installation cost	\$207,500				
		Annual total	\$4,815,328				

As of October 1997, the cost of a Pentium II 300 Mhz computer equipped to RCCD bid specification for instructional computers was \$3,105. The installed cost after adding the wiring, servers, network and furniture was \$5,455 - \$2,350 more. The cost of training technicians, instructors and students should be added to the above cost.

2. Personnel and Staff Development - Riverside City Campus2.1.

October 1997	
Instructional Computing	1.0 Technician (not funded)
	3.0 Lab aides (not funded)
Distance Learning	0.0
Faculty Lab	1.5 Lab Aides (not funded)

2.0 Instructional Media Technician **Instructional Media Assistants** 2.0

Five year projection – year 2002:

Instructional Media Center

Instructional Computing	1.0 Lab manager
	4.0 Technician
	16.0 Interns

16.0 Interns 12.0 Lab aides

1.0 Media Clerk

Distance Learning 1.0 Production Manager (Television)

1.0 Television Technician 10.0 Student Camera Operators

1.0 Clerical

Production Manager (Internet) 1.0

2.0 Instructional Designer

10.0 Student Web Page Designers

1.0 Programmer/Technician

1.0 Coordinator of Community programs

1.0 Clerical

Faculty Training / Production Labs 1.0 Lab Manager

5.0 Lab Aides

Instructional Media Center 1.0 Media Clerk 2.0 Graphic artist

> Instructional Media Technician 2.0

> 2.0 Instructional Media Assistants

medial technology should provide a resource for distance learning in the State of California, and it is suggested that, in addition to the regular distance learning courses via television and Internet, that Moreno Valley originate distance learning courses in medial technology.

4. Personnel and Staff Development Identified by Norco Campus 4.1. October 1997

Instructional Computing Services 1.0 Technician (not funded) 3.0 Lab Aides (not funded)

0.0 Distance Learning Faculty Lab 0.0

Instructional Media Center 1.0 Hourly Classified

Five year projection – year 2002:

Instructional Computing 3.0 Technician

8.0 Interns 10.0 Lab aides 2.0 Technician

Distance Learning 1.0 Clerical

> 1.0 Coordinator Engineering programs

Faculty Training / Production Labs 1.0 Lab Manager

3.0 Lab Aides

Instructional Media Center 1.0 Media Clerk

> Instructional Media Technician 1.0 1.0 Instructional Media Assistant

4.2. Overall summary description: Technicians and lab aides are needed immediately to support installation and operation of the new general purpose lab in the Humanities building, and to properly maintain the other computer laboratories on the campus.

Continued growth of the Norco campus and programs ensures resources to support orderly growth as proposed here. The specialization in engineering, computer science and multimedia should provide a resource for distance learning in the State of California. It is suggested that, in addition to the regular distance learning courses via television and Internet, that Norco originate distance learning courses in engineering, computer science, megatronics, and related technologies.

Personnel and Staff Development - District Level 5.1. October 1997 5.

Division of Learning Technologies 1.0 Dean

1.0 Secretary to the Dean

1.0 Computer Laboratory Coordinator Instructional Computing Services 0.4

Distance Learning Coordinator

Faculty Lab

1.0 Instructor (not funded)

Instructional Media Center 1.0 Manager

All of these positions are located on the City Campus and travel to Norco and Moreno Valley based on need.

evaluation of computer based instructional materials. This person will also be responsible for developing a faculty newsletter for to keep them abreast of new teaching techniques, technologies and software.

The lab aide (two 20-hour positions) will keep the faculty lab open as needed for up to 40 hours each week and provide assistance for faculty to use hardware and software; design, produce and test materials; and implement presentations and multimedia in classrooms and labs.

Distance Learning

- 0.6 Distance Learning Coordinator Sharon McConnell (increase from 0.4)
- 1.0 Student assistant (increase from 0.5)

Note: This position will coordinate existing courses delivered on tape to local cable companies; review available resources to expand the offerings via cable; prepare a plan for use of interactive video to link RCCD campuses and 4Cnet campuses; and explore the distance learning options for certificate programs taught at RCCD.

Audiovisual Production / Classroom Support / Technical Support

- 1.0 Coordinator and Media Specialist (Henry Bravo)
- 1.0 Media Clerk (Becky Soto)
- 1.0 AV Tech (Michael Prosser)
- 1.0 AV Tech (Amando Castro)
- 1.0 AV Tech Evening Service (Harry Petty)
- 1.0 Media Specialist Norco (0.5 Huy Ngyen + 0.5 *new*)
- 1.0 Media Specialist Moreno Valley (Gustavo Segura)

1997-98 Proposed New Operating Budgets (less salaries &equipment)

Academic Computing Office supplies 10,000 Travel. 8.000 Contracted services 50,000 Computer and network components (maintenance) 60,000 Software, site licenses, services, etc. (new) 75.000 Faculty Development Computer supplies – toner, paper, inks, transparency materials, software, authoring programs, services 10,000 Distance Learning Production Expense (new) 50,000 Instructional Media Center

AV Graphic, Television, and Computer Services

in support of faculty production

25,000