

# The Adventist Education Network

## A Proposal to Integrate Distance Learning Technology into Adventist Higher Education

### Introduction

Poised as we are at the beginning of the 21st century, technology now affords exciting possibilities for enriching and expanding Seventh-day Adventist education. No longer will the previously encountered boundaries related to geography and time impede the development of Adventist higher education in North America. It is now possible to offer degree and certificate programs, specialty undergraduate and graduate courses, undergraduate prerequisite and general education courses, and continuing education to students anywhere and anytime (see Appendix A).

It is time to move forward to develop an Adventist Education Network. A “network” that will expand educational opportunities to the existing traditional students enrolled in Adventist colleges and universities, and provide a means for non-traditional students (e.g., working adults, geographically isolated individuals) to access a quality educational experience steeped in superb Christian values and whole person development.

Through the collaborative use of distance learning technologies, each academic institution will enhance the educational experience of “their” traditional students, and expand educational opportunities to an, as of yet untapped, off-campus student population. Many secular colleges and universities (e.g., University of California, California State University, and others listed in Appendix B) have already successfully adopted distance learning strategies that have increased the number of traditional and non-traditional students enrolled in certificate and degree programs, as well as continuing education courses.

Distance learning technologies should enable all students to access the “finest” that Adventist higher education has to offer at a cost that is affordable. Our educational

diversity will become our strength as we continue, though with new technologies, to provide an educational environment that integrates faith and Christian values into personal living and professional activity as a central theme of our mission to “go and do”, and “go and share” the good news of the gospel.

### Distance Learning Technologies

The technologies presently used in distance education include: videos, the internet, and interactive videoconferencing. Depending on the type of course and target audience, these technologies can, singly or in combination, be used to provide an educational experience to students “anywhere” in North America...or the world.

Videos, either recorded from existing courses or uniquely prepared for distance learning, can be viewed anywhere and anytime by distance education students. The Internet can be used as a primary source of information (e.g., Web pages, library access) and student-student or student-instructor discussion (e.g., “chat rooms”, see you-see me), or to supplement courses in which the bulk of the information is presented using videos, textbooks, and syllabi. Videoconferencing is two way, full motion (30 frames/second), interactive, digital communication that permits two or more academic institutions to engage in face-to-face audio/video communication.

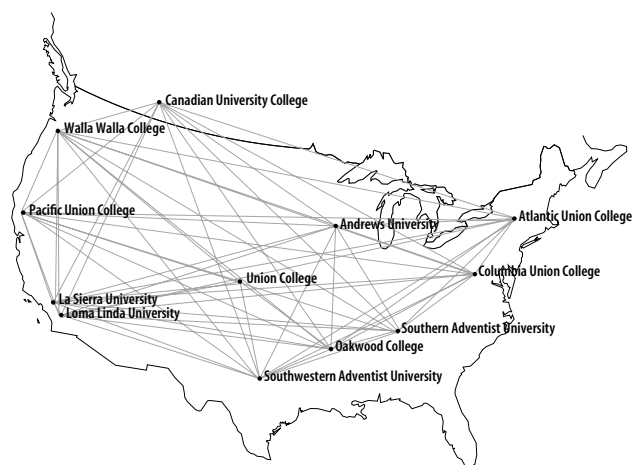
A comparison between traditional lecture and distance learning instructional approaches follows:

LLU is presently using ISDN (Integrated Services Digital Network) to transmit data, audio, and video, and the internet for Q&A sessions, to off-campus sites (i.e., Glendale Adventist Medical Center). This technology could be used to link SDA colleges and universities in North America. Course lectures (all or as selected) could originate from any campus and be sent, using ISDN technology, to a single distance classroom (i.e., point to point conference with one receiving campus) or numerous distance classrooms (i.e., multi-point conference to all campuses). Laboratory experiences would con-

tinue in their present mode, or be enhanced by interactive participation from or between any of the participating distance learning sites. Multipoint conferences require the use of a “hub” to connect three or more sites. Hubs are presently available from numerous vendors (e.g., Picture Tel, Sprint, AT&T).

### Network “Hub” for Campuses\*

\*AHS and other organizational entities (e.g., corporate communications)



### What Courses Could be Taught?

Of interest are select degree and certificate programs, specialty undergraduate and graduate courses that would enrich existing course offerings at a particular campus or be available to the non-traditional student, undergraduate prerequisite and general education courses that may not be available in some geographical areas due to budget constraints in secular institutions, and continuing education for post-graduates.

#### Prerequisite and General Education Courses

Biology, Chemistry, Physics, Anatomy & Physiology, Microbiology, English, History, Communication, Fine Arts, Behavioral Sciences, Mathematics

#### Specialty Courses

Cell & Molecular Biology, Gene Therapy, History, Social Work

### Select Degree and Certificate Programs

Allied Health, Nursing, Graduate School, Engineering, Molecular Genetics

### Continuing Education

Health Professionals, Educators, Ministers, Lay persons

### Equipment and Transmission Costs

For *videoconferencing* each campus would require equipment to transmit and receive ISDN signals to and from distant sites (e.g., PictureTel™ Concorde unit) at a cost of about \$80,000-100,000. Transmission/reception requires three ISDN phone lines, which apart from installation charges, each cost about \$30/month to maintain, exclusive of “line time” (i.e., competitive long distance rates would be charged for the actual time spent for class presentation). Additional charges are incurred when a “hub” is used to connect three or more sites (e.g., Sprint™ multipoint bridging is \$0.75/min/site). Use of the internet is “free”, but would require computers and computer support on each campus. Videos, from “high-tech” to low budget, could be produced by media services personnel.

### Balancing the Budget

Distance learning technology should enable us provide quality education at no more, and probably less, expense than traditional approaches. There follows a hypothetical budget for a 4 quarter unit lecture only course originating from Site 1 and simultaneously sent to 5 extended campuses (sites 2-6).

#### Tuition Income

- \$144,000.00  
6 campuses x 20 students/campus x 4 units x \$300/unit

#### Indirect Savings

- \$50,000.00 Faculty duplication  
1/8 faculty work load x 5 faculty x \$80,000 salary/benefits

**Direct Costs**

- \$1,620.00  
3 ISDN lines x 6 campuses x \$30/month x 3 months
- \$25,200.00  
ISDN Line Charges-Long Distance \$105/hr x 6 sites x 40 hrs  
*(line charges are for maximum distance [e.g., Site 1-Site 6], for closer sites [e.g., Site 1 to Site 2] lines charges would be less)*
- \$9,600.00 Bridge- “Hub”  
\$40/hr x 6 sites x 40 hours
- \$1,500.00 Equipment/depreciation  
\$100,000 per site/SL 10 yr x 6, 40 courses/yr
- \$15,000.00 Personnel  
1/8 of faculty lecturer work load x \$80,000      \$10,000.00  
5 extended campus facilitators (@ \$1,000)      \$5,000.00
- \$12,000.00 Physical plant and utilities  
using 6 existing facilities

would cover: faculty salaries, one-sixth of the line and bridge charges, and ISDN monthly line charges. A “receiving” or off-campus site would be guaranteed 70% of the tuition generated at the site to cover line and bridge charges, ISDN monthly line charges, and other direct and indirect costs. The other 30% of tuition generated by receiving sites would be sent to the originating institution.

Based on these formulae, the institutions in the previous example would divide tuition revenue and indirect savings of \$194,000 as shown in Example 1 below.

Where else could you get a “cutting edge” lecturer or lecturers (e.g., on gene therapy) to enhance the curriculum of a program for less than \$10,000? Line charges for receiving sites would be pooled and then split evenly to “normalize” the distance/enrollment factors—don’t “penalize” a distance education site just because it is more distant or because it has a small number of students.

**Quality Through Diversity  
(or Peaceful Coexistence/Cooperation)**

The split of tuition revenues would be as follows:

The “originating” institution would receive 100% of tuition generated by their on-site students. This

**Loma Linda University’s Role in the Adventist Education Network**

“Living is easy with eyes closed”, but Loma Linda University’s eyes are open. As an internationally renowned health sciences institution, Loma Linda University is willing to take a major role in developing the vision of the Adventist Education Network. Having already made

<b>Example 1</b>				
<b>Institution/Students</b>	<b>Tuition Income/Faculty Duplication</b>	<b>Costs</b>	<b>Tuition Retained</b>	<b>Residual*</b>
<b>Originating Site</b>				
Site 1/20	\$24,000.00	\$18,320.00	\$60,000.00	41,680.00
<b>Receiving Site</b>				
Site 2/20	\$34,000.00	\$9,320.00	\$16,800.00	10,730.00
Site 3/20	\$34,000.00	\$9,320.00	\$16,800.00	10,730.00
Site 4/20	\$34,000.00	\$9,320.00	\$16,800.00	10,730.00
Site 5/20	\$34,000.00	\$9,320.00	\$16,800.00	10,730.00
Site 6/20	\$34,000.00	\$9,320.00	\$16,800.00	10,730.00
<b>Totals</b>	<b>\$194,000.00</b>	<b>\$64,920.00</b>	<b>\$144,000.00</b>	<b>\$107,580.00</b>

\*The residual does not include \$10,000 per site savings resulting from a reduction in faculty duplication.

a successful entry into distance learning (see Appendix C) we are eager to: (1) initiate dialog between Adventist college and university campuses, (2) share our expertise as related to the selection and application of distance learning technologies, (3) train faculty in the use of distance learning equipment and presentation formats, and (4) coordinate the development of distance learning support services (e.g., library, registration, media services).

Undoubtedly, a number of issues will need careful study, including financing of equipment, student services (e.g., finances), which institution grants the degree, accreditation (see Appendix D), courses and programs to be taught, and which faculty will teach courses. However, only through cooperative and collective efforts will solutions emerge that will enable Seventh-day Adventist higher education to successfully move into the next millennium.

We need to start planning now on how Seventh-day Adventist education will use distance learning technologies to nurture Christian values, develop the whole person, and ultimately prepare students to integrate faith into their chosen professions.

## **Glossary**

### **ISDN (Integrated Service Digital Network)**

Integrated transmission of voice, data, and video.

### **Multipoint Conference**

A videoconference involving three or more locations; usually “voice activated”, which means whichever site is speaking is the site everyone sees.

### **Point to Point Conference**

A videoconference between two locations.

### **Videoconferencing**

Two way, full motion, interactive, digital communication which permits two or more locations to engage in face-to-face audio and visual communications.

This document was found at the Virtual Learning Laboratory at <http://www.atie.org/~meggers/vll/>.

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<http://www.atie.org/>