

**“Three-year Comprehensive Distance Education Plan for
Oregon’s South Coast Region”**

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“Three-year Comprehensive Distance Education Plan for Oregon’s South Coast Region”

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“Technology’s role in education is evolving beyond spreadsheets and formulas. It has now become a way for us to expand educational opportunities to the students that have historically had a barrier blocking their way to academic rigor and success. ...”

Distance learning is still a mystery to many, including some educators. Most people do understand that it has to do with the Internet and education, but beyond that connection, there are still too many people unaware of the potential impact this method of delivering education could have on our society. ...

The demand to make education more accessible and success more achievable for all students clearly exists. Distance learning is a strategy to help meet this need and the result will be a more educated populace, which is the fuel to a strong economy.

If we are serious about ensuring success for all of Oregon’s students, we must keep doing what we know works without being afraid to adopt new strategies that broaden the scope of learning opportunities. E-Learning is a method of delivering high quality course work and opportunities to all of our students, and it is a critical next step for our state as we are to ensure all of our students are achieving at the high levels of academic proficiency we know can be accomplished.¹”

Susan Castillo, Oregon State Superintendent of Public Instruction

*“Distance education is a core educational strategy. It holds great potential on a number of levels. Yet, the potential for failure, or for mediocre distance programs is high....
Developing proactive, strategic plans requires the commitment of entire institutions...”²*

Elizabeth A. Buchanan, Ph.D., University of Wisconsin-Milwaukee

“Three-year Comprehensive Distance Education Plan for Oregon’s South Coast Region”

Executive Summary

The region is under intense economic pressures with an economy in decline or in “transition,” as some would put it. This transition has many possibilities associated with it. However characterized, there is a need for “jobs, jobs, jobs” and workforce education/training to provide the necessary preparation for those jobs. Several areas will grow in demand over the next decade. Most growth will be in professional/technical fields such as health care, education and social work. Sales and service jobs are also among the fastest growing. Not surprisingly, fishing and timber industry jobs will fall.

The demographics of the region have shifted with the economic tide. Age groups that are increasing in size are older -- over 45 -- while younger cohorts are decreasing in size. Similarly, personal income more and more is derived from dividend, interest, and rent which conforms to a retirement population. Net earnings come from a very small number of industries: local government (education, public health and tribes), lumber and wood, health services and tourism. Small businesses are the norm in the region, and work ethic is the number one workforce problem for employers. Other problems are the lack of childcare and transportation. Basic skills including literacy are a significant problem for the regional workforce.

During a period when community colleges have been under considerable financial pressures with results that include decreased enrollments across the state, SOCC enrollments have shown a modest rise (2003 to 2004 increase of 1%). Enrollments as a percentage of total county population for Coos (12.6%) and Curry (9.1%) are among the highest in the state. The ages of SOCC enrolled students in the region predominantly is in the 25 years and older range and corresponds with the definition of non-traditional students, the group that is most interested in DE. Regional residents are indeed seeking out opportunities for improving employment status.

SOCC defines DE as:

“Distance education is any type of learning where students and instructor are separated by time and/or place. It can be delivered using a variety of methods or technologies including modem/on-line computer, video tape, public broadcasting, satellite, or other media.”

Distance education is a popular and powerful option for nontraditional learners. Adult learners represent a significant category of nontraditional learners.

- 35 percent of undergraduates are adult learners
- 70 percent of all adult learners are female
- 38 is the median age of undergraduate adult learners
- 80 percent of adult learners are employed

SOCC online course offerings have grown rapidly and will need to grow more to meet regional needs. Students like this way of advancing their education as they can do it on their own time, often after the kids are in bed or on weekends. Women are enrolled in the SOCC DE programs at a better than 2 to 1 ratio to men.

A number of opportunities surfaced during the regional assessment and are reflected in the resulting strategic plan recommendations.

Faculty preparation and support surfaced as an area requiring attention. The need for additional student support surfaced as well.

The need to start preparations for migration to a new and more powerful version of the online course delivery application is necessary. WebCT is moving to a new version that will have substantial positive changes but also with increased complexity.

Another serious issue for the region is access to high-speed telecommunications services (broadband) at home or at a nearby location during the hours when these students prefer to take their courses.

Funding is an issue that continues to challenge delivery of educational services, especially newer and more efficient ways of providing education.

Public awareness of DE availability and value would benefit from an expanded campaign to inform residents and workforce development entities.

SOCC has made remarkable progress with its Distance Education offerings in the short period since DE first commenced under its auspices. This growth has come through a great dedication, perseverance, creativity and commitment to meeting student needs. The DE director and staff are to be commended.

To build on and sustain the commitment demonstrated so far will require senior-level administration support, an infusion of capital to support technology needs and acquisition as well as preparation and support of critical human resources. While challenging, there are excellent prospects for continued growth and sustainability. A number of critical actions are needed to sustain distance education in the region and to take it to the next level.

1. Provide teacher professional development in online course delivery.
2. Expand comprehensive technical support for students and faculty.
3. Stabilize the online course delivery platform hosting location and prepare for the impending major upgrade.
4. Focus efforts with regional collaborators to eliminate the broadband divide.
5. Collaborate and cooperate on DE strategies across the region and within the state.
6. Continue to research and deploy DE enhancements.

“Three-year Comprehensive Distance Education Plan for Oregon’s South Coast Region”

Purpose and Methodology

The purpose is to provide a three-year comprehensive distance education plan for Oregon’s south coast region. The outcome of this planning process will be used to pursue additional funding opportunities for improving and expanding the usage of distance education on the Oregon’s south coast. As such the final product includes a substantial gathering of facts and information from a very wide variety of resources to support future fund-seeking efforts. Before adoption the recommendations will require review and concordance by appropriate distance education decision-makers in the south coast region.

It’s also important to recognize that given the myriad facts and complexities of the topic that these results while highly data-driven are subject to interpretation and as such are the opinion of solely one person. Others may differ in their views. Again, this is why it will be important to vet the recommendations with planning partners in the region.

This project is important and urgent with outcomes intended to facilitate improvement in the lives of many. It deserved and received a very thorough approach. As the effort was focused on the distance education arena, the challenge to not roam into other aspects of educational delivery systems was resisted, although the temptation was great.

One caveat is issued to the readers. Complex topics such as education are difficult to separate out the components as purely stand-alone. As such the reader should be aware of the pitfalls of siloed thinking when addressing such a broad field as education, given the many interlaced components. The approved and adopted results of this effort should be integrated into the larger planning efforts for education on the south coast.

The approach taken herein addresses the three fundamental strategic planning questions:

1. Where are we? (Assessment)
2. Where do we want to be? (Goal setting)
3. How do we get there from here? (Actions and resources required, a roadmap to the future)

The project started in the week of April 3. Actual hours invested by the consultant were well in excess of 600. This figure does not include over 75 hours of travel time.

Throughout the project new relationships were built and existing relationships hopefully were bolstered. We did this by involving key regional community members, SOCC staff, partners and others in the process, including them where possible and ensuring that communications were sufficient to build support for the outcome of “...an unprecedented collaborative to improve educational service delivery to an underserved population mired in poverty, high unemployment, and myriad socio-economic problems.”³

A survey of students, educators and faculty and regional stakeholders provided a substantial body of information used in the identification of strategies.

Interviews with many involved with education and the product of education provided additional information and insight.

A substantial body of published research material provided yet another opportunity for measuring DE on the south coast and for gleaning ideas.

The consultant remains committed to the future of DE on the south coast and as such will be available for a reasonable period of time to answer questions, meet with decision-makers and remain available to address any concerns that may arise from this body of work.

Respectfully submitted,

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Distance Education Overview

SOCC Distance Education Definition

Definitions of distance education abound. One only need submit a request to Google for a search on “distance education definition” to see that there are some 4,720,000 hits on the search. SOCC’s definition encapsulates the heart of the matter. “Word-smithing” seems to be the predominant difference between the myriad definitions at play. As such we believe the SOCC definition to be workable and complete.

“Distance education is any type of learning where students and instructor are separated by time and/or place. It can be delivered using a variety of methods or technologies including modem/on-line computer, video tape, public broadcasting, satellite, or other media.”⁴

The Role for Distance Education

Distance education is a popular and powerful option for nontraditional learners. Three-quarters of all undergraduates are "nontraditional," according to the National Center for Educational Statistics. Nontraditional students are defined as having one or more of the following characteristics:⁵

- Delayed enrollment—did not enter postsecondary education in the same year they graduated from high school
- Attend part-time, for all or part of the academic year
- Work full time—35 hours or more—while enrolled
- Financially independent as defined by financial aid
- Have dependents, other than a spouse, which may include children or others
- Single parent, having one or more dependent children
- Lack of a high school diploma

The more nontraditional characteristics students possess, the less likely they are to persist in college after the first year or to graduate. Nontraditional learners tend to be concentrated in specific types of institutions. In community colleges, for example, nearly half the students have delayed beginning postsecondary education. Half also had two or more persistent risk factors. In contrast, 91 percent of students in four-year colleges enrolled immediately after high school; 85 percent had no persistent risk factors. Adult learners represent a significant category of nontraditional learners.

- 35 percent of undergraduates are adult learners
- 70 percent of all adult learners are female
- 38 is the median age of undergraduate adult learners
- 80 percent of adult learners are employed

The motivation for going to college is often different for adult learners compared to the Net Gen (see Appendix 1 -- “21st Century Education, Technology and the Role of Distance Education” -- for a more thorough discussion of so-called generational differences).⁶ Among adult learners 70

percent have a degree as their goal; the other 30 percent are seeking a certificate or a specific set of skills.

With many traditional industries such as manufacturing and textiles going offshore, 20-year veterans of the workplace are being laid off and going back to school to learn a new trade. Distance education helps those who have to work a job and go to school at the same time better schedule their learning opportunities. These people are usually older, in their 30s or 40s, and are learning to use technology, like the Internet and computers, while training for a new career.

In theory, the Net Generation should learn better through Internet courses because they have been surrounded by computers all their lives and know how to use the technology already. Yet just the opposite is true. Net Geners like the social interaction that comes with being in class with their peers. While they may use technology in their daily lives, relationships are a driving force in the learning process.⁷ Among Net Geners: learning through social interaction is important. Feedback from the professor is vital, and working in groups is the norm. Arman Assa, MBA candidate and president of PackMUG -- the Mac Users Group at NCSU -- said that learning technology has not advanced enough to replace the social interaction in the classroom.

"Historically, communal learning has always been the most effective way for educating the student and generating thought-provoking discussion in class. I don't believe technology has reached a point where we can duplicate that effectively on a computer," Assa said. "Some instructors argue that chat rooms, message boards, and instant messaging are good substitutes, but they are by no means replacements for the exchange of tacit knowledge.

"Does this mean that interactive technology is bad for the classroom? No. It means that it should simply augment what is already there," Assa continued. "For instance, one of my human resource classes in the MBA [program] has regular classroom discussion, but the instructor augments it with message board interaction. It was a very effective tool for helping introverts who don't talk in class to join the discussion."⁸

So what do Net Geners want from learning technology? Interactivity -- whether it is with a computer, a professor, or a classmate. They want it; they crave it. Traditional lectures are not fulfilling the learning potential of typical students today. Distance education and online courses don't work well with Net Geners -- the social component of learning is required. As technology in the classroom progresses, more and more students are going to demand it be included.⁹

Distance Education has a valuable role to play for a very large population of students. However, as in many aspects of life, "one size does not fit all." As such we need to continue to develop our understanding of how best to employ this method of expanding access to education. Just as we need to understand other ways in which technology can serve educational needs in other capacities.

Trends in Technology Enhanced Education

The 2005 Horizon Report suggests several important trends.¹⁰ The likely impacts of these trends for teaching and learning are significant and broad reaching. Even more than their potential for the classroom, each of the trends is influencing the others in ways that continue to unfold. As

they do, it is a virtual certainty that new forms of communication, collaboration, and learning will follow. Are educators keeping up with their students wants and needs?

- The locus of ownership of both the process of constructing and sharing knowledge, and of knowledge itself, is shifting. Learners are not only willing to participate in the construction of knowledge (e.g., wikis and BLOGs); they are starting to expect to.
- New models for sharing and licensing content and software are emerging that will have lasting implications for the way information is distributed and obtained. Open-source software development projects are becoming more common. Forms of license that not only allow, but also promote the sharing of resources are on the rise. An example is the Creative Commons (www.creativecommons.org), a nonprofit organization that supplies flexible copyright statements for creative work.
- The lines defining what can be done with desktop computers as opposed to laptops, handhelds, or even cell phones are blurring. In response to consumer demand, device manufacturers and software producers are increasingly focused on interoperability and compatibility.
- Access to the Internet is increasing, not only in terms of who has it, but also in terms of what devices can do it. This trend, driven by the increasing demand to keep in touch and stay informed, is resulting in more possibilities for communication and information retrieval. Increased access is augmented by new developments in wireless technology.
- People are using technology to connect with each other easily, informally, and on many levels. This is one of the most interesting current developments in educational technology. The fear that technology-enhanced communication will replace face-to-face interaction is subsiding, replaced by a dawning understanding that enabling social interaction and interpersonal connections is a valuable aspect of technology.
- Content is valued over format, meaning that consumers are less concerned with where content comes from or how it is packaged and more concerned with what it actually is. This is resulting in content offered in a variety of formats, often with different costs associated with the various formats (consider Amazon.com's "search inside the book" feature, which grants access to part of a book for free).

Over the next few years, we will start to see broad usage within K-12, colleges and universities of a number of emerging trends as we move to meet the changing demands and needs of students, summarized in the following chart.

Net Generation Student Characteristics¹¹	Potential Implication
Increasing importance of out-of-class experience	Attention needs to be paid to the design of informal spaces.
High level of comfort with collaboration.	Attention needs to be paid to the design (or redesign) of classroom space.
Net geners feel that the online world is a community but they value the face-to-face experience in courses.	Attention should be paid to what components of the course experience leverage online and face-to-face activity.
Need for mobility.	Invest in wireless systems to satisfy student need to be able to access courses, communities, and resources from anywhere.
Desire for customer service.	Adult students in particular have specific learning needs and objectives and a high level of expectation that their academic and business needs be met efficiently.

These trends have implications for how we construct facilities, prepare faculty and support students (see Appendix 3 for links to examples of the following).

- **Extended Learning.** On some campuses, they augment traditional instruction with technology tools that are familiar to students and used in daily life. Extended learning courses can be conceptualized as hybrid courses with an extended set of communication tools and strategies. The classroom serves as a home base for exploration, and integrates online instruction, traditional instruction, and study groups, all supported by a variety of communication tools.
- **Ubiquitous Wireless.** With new developments in wireless technology both in terms of transmission and of devices that can connect to wireless networks, connectivity is increasingly available and desired. Campuses and even communities are beginning to regard universal wireless access as a necessity for all.
- **Intelligent Searching.** To support students’ growing need to locate, organize, and retrieve information, sophisticated technologies for searching and finding are becoming available. These agents range from personal desktop search “bots,” to custom tools that catalog and search collections at an individual campus, to specialized search interfaces like Google Scholar.
- **Educational Gaming.** Taking a broad view of educational gaming, one finds that games are not new to education. Technology and gaming combine in interesting ways, not all of which are about immersive environments or virtual reality. What is evolving is the way technology is applied to gaming in education, with new combinations of concepts and games appearing on the horizon.
- **Social Networks and Knowledge Webs.** Supplying student’s need to connect with each other in meaningful ways, social networks and knowledge webs offer a means of facilitating teamwork and constructing knowledge. The underlying technologies fade into the background while collaboration and communication are paramount.
- **Context-Aware Computing/Augmented Reality.** These related technologies deal with computers that can interact with people in richer ways. Context-aware computing uses environmental conditions to customize the user’s experience or

options. Augmented reality provides additional contextual information that appears as part of the user's world. Goals of both approaches are increased access and ease-of-use.

Budgeting for Educational Technology

Education technology leaders have recognized that hardware costs were the first budgetary challenge their schools would face when it came to implementing technology solutions to improve teaching and learning. Yet many have failed to plan for an ongoing, consistent funding stream for technology support, relying instead on one-time infusions of money, whether in the form of e-Rate discounts on infrastructure purchases, successful bond campaigns, dedicated federal funding programs to put computers in classrooms, or special corporate and non-profit support, all of which were widely available during economic boom times.

All of the activities associated with the ongoing "care and feeding" of computers and networks are what the business world calls the "Total Cost of Ownership" (TCO). Now, more than ever before, school leaders are being challenged to provide net-worked resources in cost-efficient ways that are tied to their own needs and goals -- and to monitor how well those approaches are working.

The business world began wrestling with how best to manage TCO in the mid-1980s, as companies started to move from a mainframe computer environment to distributed computing on the desktop of every employee. There was no avoiding the fact that computers would continue to require support and generate new costs. But by making the right decisions when they deployed a network, businesses learned they could save money in the long term, or that the strategic advantage they gained would more than justify the cost of their technology investments.

The following matrix highlights differences between approaches to planning for the future of education technology within a school district. How educators make provision for the future is critical to sustaining the use of education technology. Ongoing, adequate tech support is one of the biggest challenges for school districts.

	The “TCO Savvy” District	The “Doing the Best We Can” District	The “Worry About it Tomorrow” District
<i>Professional Development</i>	Devotes 15-30% of its budget to staff development	Provides some staff training, but not at times that are convenient or when staff is ready to put the lessons to work.	Assumes that teachers and staff “will learn on the job”.
<i>Support</i>	Provides computer support at a ratio of at least one support person for every 50 to 70 computers or one person for every 500 computers in a closely managed networked environment.	Relies on a patchwork of teachers, students and overworked district staff to maintain network and fix problems. Does not track the amount of time its network is down or computers are not in use.	Relies on the “hey Joe” sort of informal support.
<i>Software</i>	Recognizes that the greater diversity of software packages and operating systems, the more the support that will be required. Makes provisions for regular upgrading of software packages.	Utilizes centralized software purchasing, but choice of application and respective support left to individual schools and/or staff members.	Expects support personnel to manage whatever software happens to be installed on a district computer.
<i>Replacement Costs</i>	Budgets to replace computers on a regular schedule, usually every five years, whether leased or purchased.	Plans to replace computers when they no longer can be repaired.	Assumes that when computers are purchased with 20-year bonds that they will last forever.

Total Cost of Ownership Types¹²

A rule-of-thumb in the business world has been that one tech support person is necessary to support 50 to 75 computers. In the K-12 environment, this ratio has been much higher, which is one reason tech support personnel often suffer from a high level of burnout. However, there is no single right answer because the level of tech support that is necessary depends on a number of interrelated factors.

Closely tied to adequate tech support is adequate professional development, a term that can mean different things to different people. Solid staff training usually leads to lower tech support requirements as computer users become better equipped to solve their own simple problems. Although much attention has been focused in recent years on training teachers in how to integrate technology into the classroom, districts need to make sure their technology staffs receive adequate training in networking and technology advancements, as well. Technology directors must also find time to keep abreast of new networking products and strategies if they are going to be able to provide good advice to school policy makers.

While some teachers undoubtedly are still novices when it comes to using technology, a survey found that nine of out 10 teachers reported they were "comfortable with computers." And it's noteworthy that 67 percent said that while they thought the Internet was a helpful, useful resource, it had not changed the way they taught. Districts must develop strategies that

demonstrate to teachers the value of new classroom approaches, that model what this new kind of teaching looks like and that help veteran teachers find the time to retool old lesson plans. A variety of staff development approaches may be necessary including ones that take advantage of online instruction, whether during or outside of the class-room day.

A challenge that looms for many school districts and colleges a few years down the road is identifying the resources necessary to replace their current inventory of computers when they are at the end of their life cycle. Over the past few years, schools have been installing desktop computers at such a rate that the ratio of students to instructional computers with Internet access has improved from 12.1 to 1 in 1998 to 5.4 to 1 in 2001, according to a National Center for Educational Statistics study released in September 2002. At some point, those computers are going to need to be replaced. Businesses are generally now replacing their computers every three years, and laptop computers every two. Forward-thinking districts appear to be aiming for a five-year refresh cycle, but many districts are not planning at all. Thin-client approaches, in which applications run on central servers rather than desktops, have enabled some districts to keep older machines in useful service for a longer period of time, but these approaches require additional attention be paid to network operations.

Developing a regular refresh cycle and keeping computers standardized on a more limited range of models should help keep tech support and staff development costs lower, as staffs are required to master fewer models and programs and keep fewer parts in inventory. Although computer donation programs have helped many districts acquire usable desktop equipment, technology directors have come to recognize the value of developing a formal policy on the minimum standards for the computers the district is willing to accept. This helps ensure that well-meaning local businesses and community members will not simply transfer their own computer disposal problems onto the shoulders of school technology leaders. New environmental regulations on the proper disposal of used computer monitors, which are considered a hazardous waste, mean school leaders may have to pay more attention to this in the future.

There are no easy answers to these challenges, particularly those that come down to money. With vision and leadership, education policy makers will be able to steer schools into the 21st century with the technologies they implement. But it remains to be seen whether their budgets will follow suit.¹³

South Coast Region Assessment

Region Profile

Introduction and Area Overview

The region, which consists of Coos, Curry and western Douglas counties, is located on Oregon's southern coast and contains about 40 percent of Oregon's coastline. The Coos Bay-North Bend area in Coos County and the Brookings-Harbor area in Curry County are its largest urban centers. Reedsport is the largest city in western Douglas County. Data addressing the economy and jobs are reported in two different economic regions for Oregon. Region 7 is Coos and Curry counties. Douglas County makes up the entire Region 6. As such, certain data for western

Douglas County is not broken out in many readily available Oregon demographic analysis sources and the level of effort required to accurately determine the data goes beyond the scope of this planning study. As such we will use the data for Region 7 as it constitutes the bulk of the region in question and serves to provide sufficient information for this level of strategic planning. Where data for the Reedsport area is available, that will be clearly indicated.

Coos, Curry, and Douglas counties entirely are rural as defined in OAR 123-057-0310 (4) (a) and (b).

Abundant rivers, heavily forested mountains and the vast Pacific Ocean provide the region's residents a unique quality of life. In addition to providing a livability not found in many other areas, these natural resources also provide a foundation for the region's resource-based industries, particularly fisheries, forest products and interstate tourism. Together, these form the basis for the region's economy. These industries, which provide a significant number of the region's livelihoods, are becoming increasingly vulnerable to interlocking environmental, seasonal and supply constraints.

Environmental, seasonal and supply constraints have taken a toll on the region's economy resulting in an inability of the region to participate in the growth in jobs, wages and personal income realized in the metropolitan and urban areas of the state. Economic forecasts predict that the regional growth will continue to lag behind the urban areas of the state, suggesting the need to invest in projects and activities which lead to economic diversification, job growth and improved community services.

Employment in natural-resource industries, such as wood products and fishing, has decreased in recent years. Of increasing importance are retirement income and tourism. Growth of the retirement sector has added employment in retail trade and services, especially healthcare.¹⁴

State and Federal Political Districts

Oregon House District 1



Representative Wayne Krieger

Party: R

Capitol Phone: 503-986-1401

Capitol Address: 900 Court St. NE., H-378, Salem, OR, 97301

Email: rep.waynekrieger@state.or.us

Interim Email: wkrieger@harborside.com

Website: <http://www.leg.state.or.us/krieger>

Oregon House District 9



Representative Arnie Roblan

Party: D

Capitol Phone: 503-986-1409

Capitol Address: 900 Court St NE, H-384, Salem, OR, 97301

Email: rep.arnieroblan@state.or.us

Interim Email: rep.arnieroblan@state.or.us

Website: <http://www.leg.state.or.us/roblan>

Oregon Senate District 1



Senator Jeff Kruse

Party: R

Capitol Phone: 503-986-1701

Capitol Address: 900 Court St. NE., S-215, Salem, OR, 97301

Email: sen.jeffkruse@state.or.us

Interim Email: sen.jeffkruse@state.or.us

Website: <http://www.leg.state.or.us/kruse>

Oregon Senate District 5



Senator Joanne Verger

Party: D

Capitol Phone: 503-986-1705

Capitol Address: 900 Court St. NE., S-301, Salem, OR, 97301

Email: sen.joanneverger@state.or.us

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Senator Ron Wyden

<http://wyden.senate.gov/>

<http://www.senate.gov/~wyden>

Senator Gordon Smith

<http://www.senate.gov/~gsmith/>

<http://www.senate.gov/~gsmith>

Population

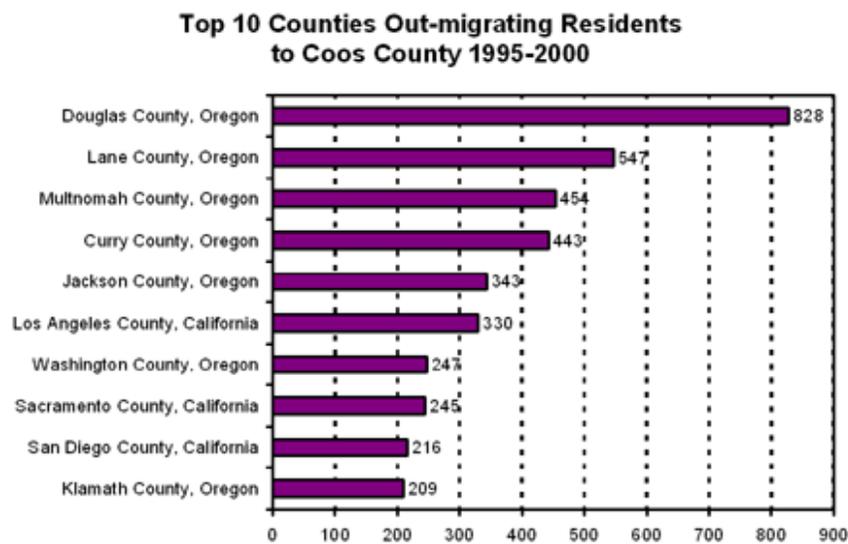
The population of all three counties is gradually aging due to the aging baby boom population and the growth of the retirement age population. Another possible interpretation of the data developed by the Oregon Employment Department is that younger age groups have left with their children because of the lack of living wage employment in the region.

Coos and Curry population growth is outpacing Oregon and was addressed in an April 26, 2005 article posted on the Oregon Labor Market Information System website (OLMIS).¹⁵

“Recently released data from the U.S. Census Bureau show the South Coast's population grew faster than the statewide average between July 1, 2003, and July 1, 2004. Oregon added 30,256 residents during that 12-month period, growing at 0.8 percent. Coos County's population increased 609, for a growth rate of 1.0 percent. Curry County's population increased even faster, adding 403 people, a 1.9 percent gain. Coos County was the 14th-fastest growing county over that time. Curry County was one of Oregon's fastest growing counties, ranking fourth among Oregon's 36 counties. Deschutes County grew the fastest, up by 3.8 percent over the 12-month period and also had the distinction of being the fastest-growing county from July 1, 2000, to July 1, 2004, up by 16.6 percent.

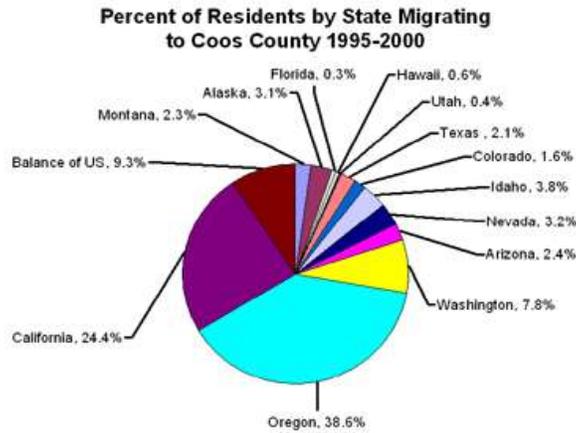
During the past four years ending July 1, 2004, Coos County was the 25th-fastest growing county in Oregon, gaining 960 new residents for a percentage increase of 1.5. Curry County ranked 12th-fastest growing in Oregon over that time, gaining 963 residents. Curry County's percentage increase, 4.6, also trailed the statewide percentage increase of 5.1.

Components of population change show that deaths exceeded births in both South Coast counties, meaning that all of the region's population increase occurred due to in-migration. Of the South Coast's 1,458 people who migrated from other areas between July 1, 2003, and July 1, 2004, 67 came from other countries. The census bureau does not produce annual estimates of where new residents migrate from by state or county. But during the decennial Census, it asks residents what county and state they resided in five years before. This gives us the best snapshot, even if it is only available every 10 years, of where new residents are coming from. Data are also available on where a county or state's residents have moved. Graph 1 shows the top 10 counties where Coos County residents lived five years prior to the 2000 Census. Data indicate a strong migration pattern from neighboring Douglas and Lane counties. Seven of the top 10 counties where Coos County residents in 2000 relocated from were counties in Oregon. California is also a popular place to move from, according to the census. A number of residents also appear to have fled Curry County to Coos County over that time.



Graph 1

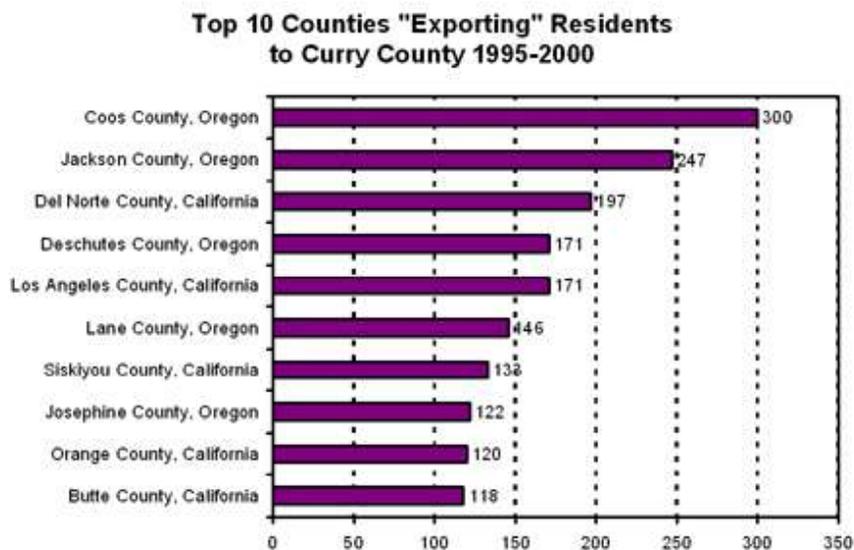
Graph 2 shows the percentage of residents by state who migrated to Coos County. Similar to the county-level data, most people who lived in another county in 1995 lived in Oregon, California, or Washington. As you cross the Mississippi, the Oregon Trail appears to grow colder, with a much smaller percent of in-migrants from those states.



Graph 2

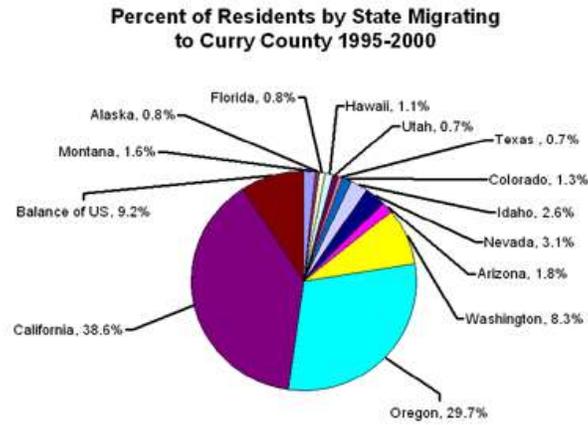
A similar phenomenon occurred in Curry County. Census data show 300 people who lived in Coos County in 1995 had migrated to Curry County by 2000. Coos County was the largest "exporter" of people to Curry County. Of the 740 or so people who moved between the two counties between 1995 and 2000, imagine the real estate commissions they would have saved if they had just exchanged houses. Graph 3 shows the top 10 counties where people moved from to Curry County.

Graph 3 demonstrates the strong migration link between California and Curry County. In fact, five of the top 10 counties people moved from between 1995 and 2000 were in California. There is also a notable absence of in-migration from the Portland area to Curry County, much less so than in Coos County.



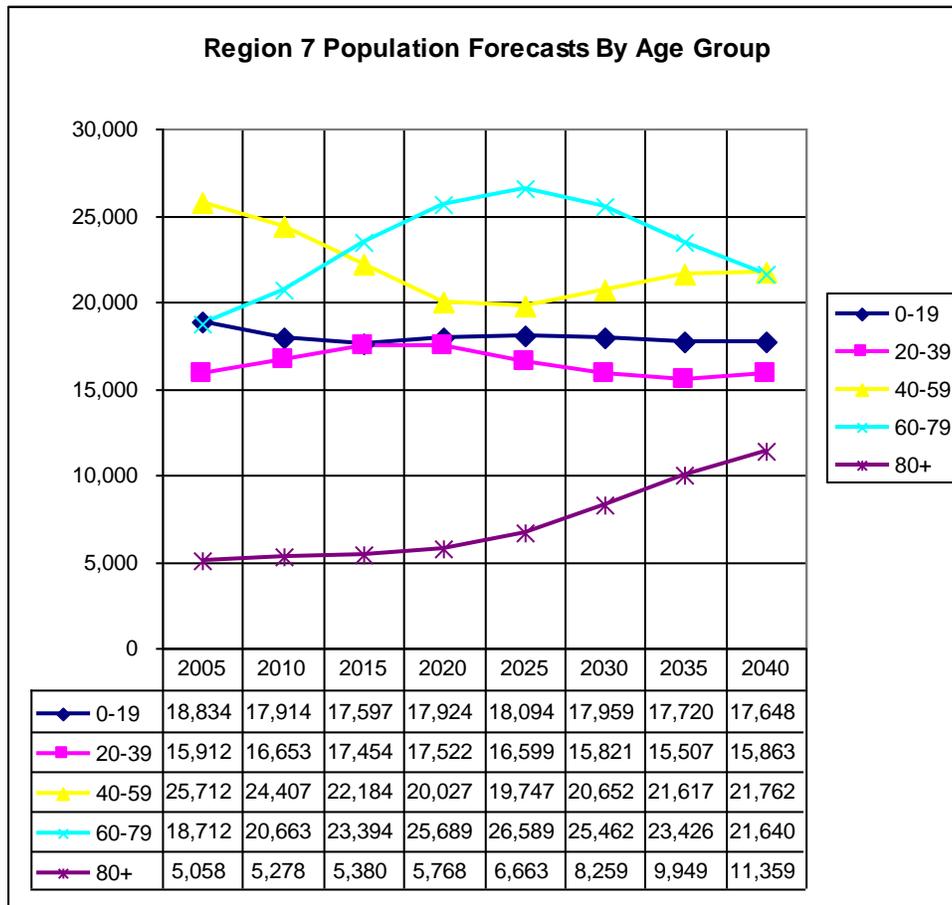
Graph 3

State-level analysis displayed in Graph 4 shows a similar pattern to Coos County, with other counties in Oregon and the Golden State contributing to the majority of new Curry County residents between 1995 and 2000. Curry County had a higher percentage of residents migrating from California than Coos County.”



Graph 4

A line graph compiled from data provided by the Oregon Department of Economic Analysis shows how different age groupings are growing in Region 7.¹⁶



Regional QuickFacts

Coos County – QuickFacts¹⁷

People QuickFacts	Coos County	Oregon
Population, 2003 estimate	63,019	3,559,596
Population, percent change, April 1, 2000 to July 1, 2003	0.4%	4.0%
Population, 2000	62,779	3,421,399
Population, percent change, 1990 to 2000	4.2%	20.4%
Persons under 5 years old, percent, 2000	4.9%	6.5%
Persons under 18 years old, percent, 2000	21.9%	24.7%
Persons 65 years old and over, percent, 2000	19.1%	12.8%
Female persons, percent, 2000	51.0%	50.4%
White persons, percent, 2000 (a)	92.0%	86.6%
Black or African American persons, percent, 2000 (a)	0.3%	1.6%
American Indian and Alaska Native persons, percent, 2000 (a)	2.4%	1.3%
Asian persons, percent, 2000 (a)	0.9%	3.0%
Native Hawaiian and Other Pacific Islander, percent, 2000 (a)	0.2%	0.2%
Persons reporting some other race, percent, 2000 (a)	1.1%	4.2%
Persons reporting two or more races, percent, 2000	3.2%	3.1%
White persons, not of Hispanic/Latino origin, percent, 2000	90.2%	83.5%
Persons of Hispanic or Latino origin, percent, 2000 (b)	3.4%	8.0%
Living in same house in 1995 and 2000', pct age 5+, 2000	53.6%	46.8%
Foreign born persons, percent, 2000	2.7%	8.5%
Language other than English spoken at home, pct age 5+, 2000	4.5%	12.1%
High school graduates, percent of persons age 25+, 2000	81.6%	85.1%
Bachelor's degree or higher, pct of persons age 25+, 2000	15.0%	25.1%
Persons with a disability, age 5+, 2000	15,513	593,301
Mean travel time to work (minutes), workers age 16+, 2000	19.9	22.2
Housing units, 2002	29,429	1,495,582
Homeownership rate, 2000	68.1%	64.3%
Housing units in multi-unit structures, percent, 2000	14.1%	23.1%
Median value of owner-occupied housing units, 2000	\$98,900	\$152,100
Households, 2000	26,213	1,333,723
Persons per household, 2000	2.34	2.51
Median household income, 1999	\$31,542	\$40,916
Per capita money income, 1999	\$17,547	\$20,940
Persons below poverty, percent, 1999	15.0%	11.6%

Business QuickFacts	Coos County	Oregon
Private nonfarm establishments with paid employees, 2001	1,699	101,003
Private nonfarm employment, 2001	18,033	1,364,924
Private nonfarm employment, percent change 2000-2001	-0.9%	0.7%
Nonemployer establishments, 2000	3,570	212,165
Manufacturers shipments, 1997 (\$1000)	391,192	47,665,990
Retail sales, 1997 (\$1000)	505,188	33,396,849
Retail sales per capita, 1997	\$8,081	\$10,297
Minority-owned firms, percent of total, 1997	3.8%	6.2%
Women-owned firms, percent of total, 1997	22.8%	27.6%
Housing units authorized by building permits, 2002	43	22,186 ¹

Federal funds and grants, 2002 (\$1000)	396,468	19,839,214
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Geography QuickFacts	Coos County	Oregon
Land area, 2000 (square miles)	1,600	95,997
Persons per square mile, 2000	39.2	35.6
Metropolitan Area	None	
FIPS Code	011	41

1: Includes data not distributed by county.

(a) Includes persons reporting only one race.

(b) Hispanics may be of any race, so also are included in applicable race categories.

FN: Footnote on this item for this area in place of data

NA: Not available

D: Suppressed to avoid disclosure of confidential information

X: Not applicable

S: Suppressed; does not meet publication standards

Z: Value greater than zero but less than half unit of measure shown

F: Fewer than 100 firms

Curry County – QuickFacts¹⁸

People QuickFacts	Curry County	Oregon
Population, 2003 estimate	21,813	3,559,596
Population, percent change, April 1, 2000 to July 1, 2003	3.2%	4.0%
Population, 2000	21,137	3,421,399
Population, percent change, 1990 to 2000	9.4%	20.4%
Persons under 5 years old, percent, 2000	4.1%	6.5%
Persons under 18 years old, percent, 2000	19.2%	24.7%
Persons 65 years old and over, percent, 2000	26.6%	12.8%
Female persons, percent, 2000	50.9%	50.4%
White persons, percent, 2000 (a)	92.9%	86.6%
Black or African American persons, percent, 2000 (a)	0.2%	1.6%
American Indian and Alaska Native persons, percent, 2000 (a)	2.1%	1.3%
Asian persons, percent, 2000 (a)	0.7%	3.0%
Native Hawaiian and Other Pacific Islander, percent, 2000 (a)	0.1%	0.2%
Persons reporting some other race, percent, 2000 (a)	1.1%	4.2%
Persons reporting two or more races, percent, 2000	2.9%	3.1%
White persons, not of Hispanic/Latino origin, percent, 2000	90.9%	83.5%
Persons of Hispanic or Latino origin, percent, 2000 (b)	3.6%	8.0%
Living in same house in 1995 and 2000', pct age 5+, 2000	52.3%	46.8%
Foreign born persons, percent, 2000	3.7%	8.5%
Language other than English spoken at home, pct age 5+, 2000	5.4%	12.1%
High school graduates, percent of persons age 25+, 2000	81.7%	85.1%
Bachelor's degree or higher, pct of persons age 25+, 2000	16.4%	25.1%
Persons with a disability, age 5+, 2000	5,617	593,301
Mean travel time to work (minutes), workers age 16+, 2000	14.4	22.2
Housing units, 2002	11,721	1,495,582
Homeownership rate, 2000	73.0%	64.3%
Housing units in multi-unit structures, percent, 2000	11.3%	23.1%
Median value of owner-occupied housing units, 2000	\$148,000	\$152,100

Households, 2000	9,543	1,333,723
Persons per household, 2000	2.19	2.51
Median household income, 1999	\$30,117	\$40,916
Per capita money income, 1999	\$18,138	\$20,940
Persons below poverty, percent, 1999	12.2%	11.6%

Business QuickFacts	Curry County	Oregon
Private nonfarm establishments with paid employees, 2001	696	101,003
Private nonfarm employment, 2001	5,153	1,364,924
Private nonfarm employment, percent change 2000-2001	5.4%	0.7%
Nonemployer establishments, 2000	1,752	212,165
Manufacturers shipments, 1997 (\$1000)	116,178	47,665,990
Retail sales, 1997 (\$1000)	148,422	33,396,849
Retail sales per capita, 1997	\$7,045	\$10,297
Minority-owned firms, percent of total, 1997	F	6.2%
Women-owned firms, percent of total, 1997	14.7%	27.6%
Housing units authorized by building permits, 2002	107	22,186 ¹
Federal funds and grants, 2002 (\$1000)	171,746	19,839,214

Geography QuickFacts	Curry County	Oregon
Land area, 2000 (square miles)	1,627	95,997
Persons per square mile, 2000	13.0	35.6
Metropolitan Area	None	
FIPS Code	015	41

1: Includes data not distributed by county.

(a) Includes persons reporting only one race.

(b) Hispanics may be of any race, so also are included in applicable race categories.

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D: Suppressed to avoid disclosure of confidential information

X: Not applicable

S: Suppressed; does not meet publication standards

Z: Value greater than zero but less than half unit of measure shown

F: Fewer than 100 firms

Reedsport - Quick Facts¹⁹

Reedsport	Number	Percent	U.S.
Total population	4,378	100.0	100%
Male	2,113	48.3	49.1%
Female	2,265	51.7	50.9%
Median age (years)	47.1	(X)	35.3
Under 5 years	210	4.8	6.8%
18 years and over	3,474	79.4	74.3%
65 years and over	1,145	26.2	12.4%
White	4,112	93.9	75.1%
Black or African American	1	0.0	12.3%
American Indian and Alaska Native	54	1.2	0.9%
Asian	19	0.4	3.6%
Native Hawaiian and Other Pacific Islander	1	0.0	0.1%

Some other race	94	2.1	5.5%
Two or more races	97	2.2	2.4%
Hispanic or Latino (of any race)	205	4.7	12.5%
Household population	4,333	99.0	97.2%
Group quarters population	45	1.0	2.8%
Average household size	2.19	(X)	2.59
Average family size	2.71	(X)	3.14
Total housing units	2,178	100.0	100.0%
Occupied housing units	1,978	90.8	91.0%
Owner-occupied housing units	1,324	66.9	66.2%
Renter-occupied housing units	654	33.1	33.8%
Vacant housing units	200	9.2	9.0%

Social Characteristics	Number	Percent	U.S.
Population 25 years and over	3,218	100.0	
High school graduate or higher	2,604	80.9	80.4%
Bachelor's degree or higher	455	14.1	24.4%
Civilian veterans (civilian population 18 years and over)	904	26.5	12.7%
Disability status (population 21 to 64 years)	530	25.3	19.2%
Foreign born	112	2.6	11.1%
Male, Now married (population 15 years and over)	1,109	64.6	56.7%
Female, Now married (population 15 years and over)	1,071	57.6	52.1%
Speak a language other than English at home (population 5 years and over)	167	4.1	17.9%

Economic Characteristics	Number	Percent	U.S.
In labor force (population 16 years and over)	1,627	46.3	63.9%
Mean travel time to work in minutes (population 16 years and over)	17.5	(X)	25.5
Median household income (dollars)	26,054	(X)	41,994
Median family income (dollars)	33,689	(X)	50,046
Per capita income (dollars)	16,093	(X)	21,587
Families below poverty level	145	11.7	9.2%
Individuals below poverty level	672	16.0	12.4%

Housing Characteristics	Number	Percent	U.S.
Single-family owner-occupied homes	974	100.0	
Median value (dollars)	92,800	(X)	119,600
Median of selected monthly owner costs	(X)	(X)	
With a mortgage	800	(X)	1,088
Not mortgaged	273	(X)	295

(X) Not applicable.

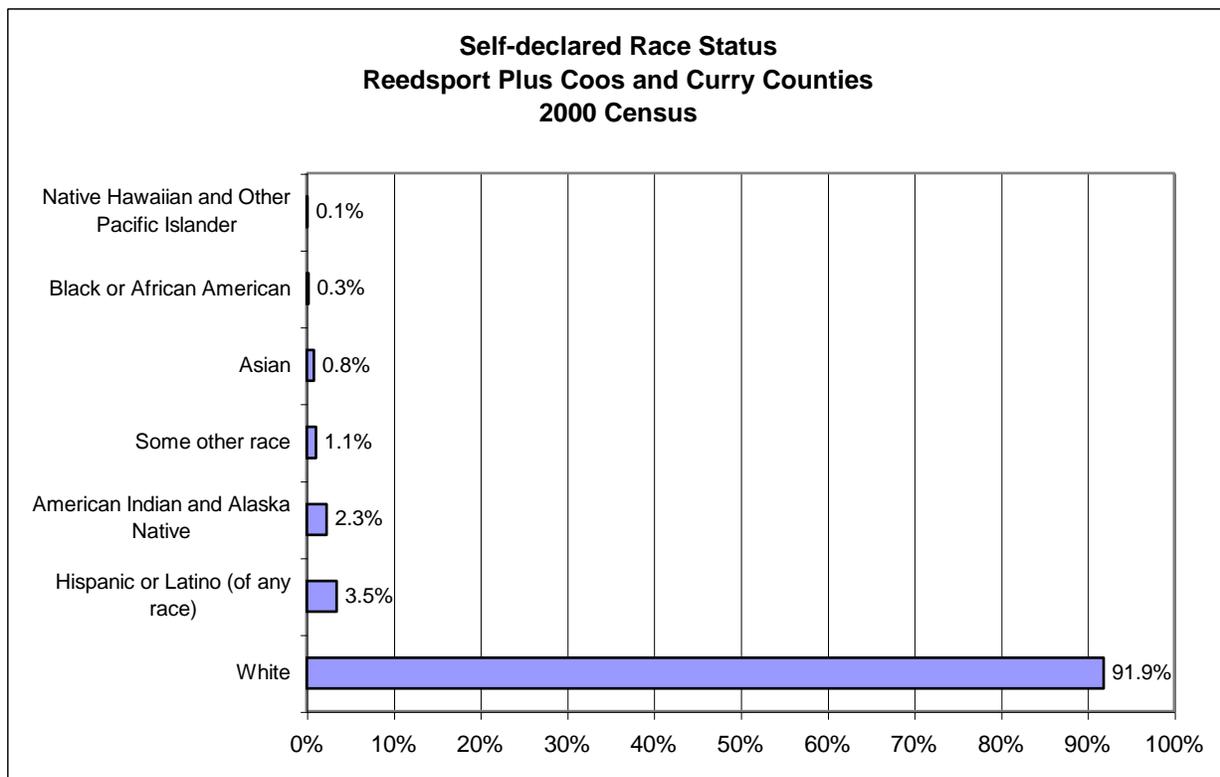
Women

Data available from the 2000 US Census shows about a 50-50 divide between males and females in the region.

Location	
US	50.4%
Coos	51.0%
Curry	50.9%
Reedsport	51.7%

Other Minorities

The “face” of the south coast region is changing, and likely at a very rapid pace. Growth in Hispanic populations is on the rise. Some estimate that the current Hispanic population in the region is double or even triple that found in the 2000 Census.



Self-declared Races Status for Reedsport, Coos and Curry Counties²⁰

Personal Income

A Region 7 analyst recently provided the following report:

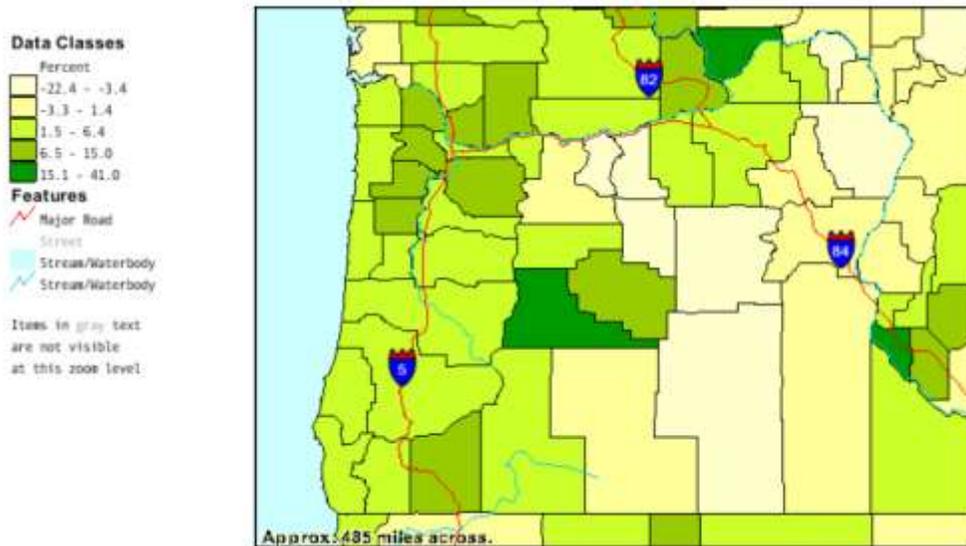
“The Bureau of Economic Analysis (BEA) recently released county level personal income data for year 2002. According to the BEA, Coos County had a per capita personal income (PCPI) of \$23,937. This puts Coos County as having the 23rd highest PCPI of Oregon's 36 counties. Coos County's PCPI increased by 4.6 percent from year 2001, much faster than Oregon's PCPI growth rate of one percent. Total personal income in Coos County was nearly \$1.5 billion in 2002. Net earnings accounted for about 51 percent of total personal income, down from about 56 percent in 1992. Dividends, interest and rent comprised 22.8 percent of total personal income. Statewide, dividends, interest, and rent make up 19.6 percent of total personal income. Personal current transfer receipts accounted for the remaining 26.1 percent of total personal income in Coos County. In Oregon, personal current transfer receipts account for 15.7 percent of total personal income. Coos County has the third highest per capita retirement and other income of all Oregon counties, at \$5,356 in 2002.

Curry County has a slightly higher PCPI than Coos County in 2002, at \$ 24,679. This gives Curry County the 17th highest PCPI in Oregon. Per capita personal income grew 2.1 percent from the prior year. Curry County had a total personal income of \$ 530,103,000 in 2002 and that was just 0.5 percent of the statewide total. Net earnings represented 39.8 percent of total personal income, much lower than the statewide average of 64.6 percent. Dividends, interest and rent income accounted for 32.9 percent and personal current transfer receipts, 27.3 percent, of Curry County's total personal income in 2002. Curry County had the highest per capita retirement and other income, \$6,113, and per capita dividends, interest and rent income, \$ 8,125, of all Oregon counties. For more information online, go to the BEA's Web site at www.bea.gov and click on ‘State and Local Personal Income.’”²¹

The U.S. Census Bureau shows persons per square mile in Oregon 2004.²²



The Oregon percent change in population from April 1, 2000 (Estimates Base) to July 1, 2004 are also shown in U.S. Census Bureau analysis.²³



Employment

Recent Trends in Region 7 were addressed in an April 1, 2005 article:

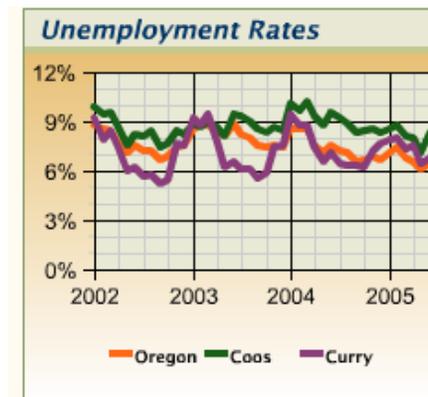
“Coos and Curry counties added payroll jobs in 2004. Recently benchmarked data show annual average payroll employment rose by 220 jobs in Curry County, for a gain of 3.4 percent from 2003. Coos County gained 630 payroll jobs over that time, for a job growth rate of 2.9 percent. Curry County had the seventh-fastest job growth rate of Oregon's 32 labor market areas, while Coos County posted the 10th-fastest job growth from 2003 to 2004. Both Coos and Curry counties had lower unemployment rates in February 2005 than they did one year before. Coos County's unemployment rate stood at 8.8 percent in February 2005, down from 9.7 percent the same month in 2004. Curry County's rate declined from 8.7 percent in February 2004 to 8.0 percent this February.

On an annual average basis, industries adding the most jobs between 2003 and 2004 in Coos County included construction, retail trade, and professional and business services. Curry County industries adding jobs over that time were construction, trade, financial activities, professional and business services, and educational and health services.

Strengthening state and U.S. economies and a rebound in tourism spending have helped the South Coast. Challenges now include higher gasoline and energy costs, the up-tick in inflation that has led to rising short- and long-term interest rates, and the effects of a dryer-than-normal winter on agriculture, river-related sporting and tourist activities, and a possible long fire season in the region's forests. While the Oregon Coast has enjoyed a record-breaking crab season this year, the outlook for the 2005 commercial salmon season looks less rosy. A 2002 water shortage in the Klamath River has led to a paltry stock of 3-year-old fish, leading to a shorter 2005 salmon season.²⁴

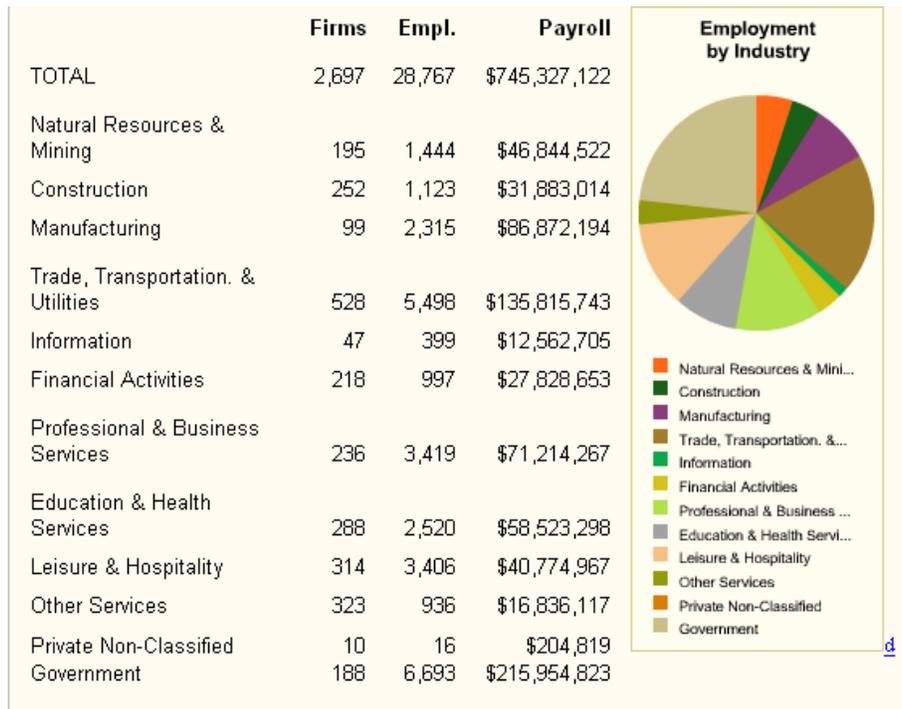
Current Employment²⁵

	TOTAL NONFARM PAYROLL EMPLOYMENT		Change from		% Change from		
	June 2005	May 2005	June 2004	May 2005	June 2004	May 2005	June 2004
Oregon	1,658,500	1,642,900	1,610,900	15,600	47,600	0.9%	3.0%
Coos County	23,120	22,960	22,290	160	830	0.7%	3.7%
Curry County	7,170	7,000	6,930	170	240	2.4%	3.5%



Unemployment Rates ²⁶			
	June 2005	May 2005	June 2005
Oregon (Seasonally Adjusted)	6.5%	6.4%	7.5%
Oregon (Unadjusted)	6.5%	6.1%	7.6%
Coos County	8.3%	7.1%	9.6%
Curry County	6.8%	6.5%	7.1%

Employment and Wages by Industry – Region 7.²⁷



Regional Workforce Projections²⁸

30 Occupations Sorted By Projected 10-year Employment Change

- Four out of the **top ten**, using this sort order, are healthcare related (40%) - Registered Nurses, Personal And Home Care Aides, Home Health Aides, and Nursing Aides, Orderlies, And Attendants. Registered nurse are projected to have the highest salary of the top ten.
- Three of the **top ten**, using this sort order, are retail related (30%) - Retail Salespersons, Cashiers, and Supervisors And Managers Of Retail Sales Workers.
- Two of the **top ten**, using this sort order, are general office related (20%) - Office Clerks, General and Receptionists And Information Clerks.

Occupations	2002	2012	Change	% Change	2004 Avg Salary
Retail Salespersons	945	1,100	155	16.40%	\$21,023
Cashiers	727	845	118	16.20%	\$19,151
Registered Nurses	556	658	102	18.30%	\$48,705
Office Clerks, General	703	796	93	13.20%	\$22,264
Supervisors And Managers Of Retail Sales Workers	380	443	63	16.60%	\$32,105
Personal And Home Care Aides	210	269	59	28.10%	\$18,534
Home Health Aides	208	266	58	27.90%	\$20,800
Combined Food Preparation And Serving Workers, Including Fast Food	598	654	56	9.40%	\$18,483
Nursing Aides, Orderlies, And Attendants	285	338	53	18.60%	\$19,563
Receptionists And Information Clerks	254	305	51	20.10%	\$21,290
Maids And Housekeeping Cleaners	376	426	50	13.30%	\$17,726
Security Guards	256	305	49	19.10%	\$18,433
Janitors And Cleaners	353	399	46	13.00%	\$21,002
Waiters And Waitresses	499	545	46	9.20%	\$17,650
Stock Clerks And Order Fillers	243	279	36	14.80%	\$22,876
General And Operations Managers	322	356	34	10.60%	\$70,028
Bookkeeping, Accounting, And Auditing Clerks	460	494	34	7.40%	\$27,357
Pharmacy Technicians	95	128	33	34.70%	\$25,285
Carpenters	174	203	29	16.70%	\$32,483
Teacher Assistants	411	439	28	6.80%	\$23,119
Pharmacists	83	111	28	33.70%	\$76,990
Food Preparation Workers	206	232	26	12.60%	\$17,542
Customer Service Representatives	170	196	26	15.30%	\$27,508
Truck Drivers, Heavy And Tractor-Trailer	481	506	25	5.20%	\$28,059
Real Estate Sales Agents	164	188	24	14.60%	NA
Elementary School Teachers, Except Special Education	335	357	22	6.60%	\$42,292
Supervisors And Managers Of Office And Administrative Support Workers	247	269	22	8.90%	\$37,342
Landscaping And Groundskeeping Workers	118	140	22	18.60%	\$20,748
Secretaries, Except Legal, Medical, And Executive	342	363	21	6.10%	\$24,311
Packers And Packagers, Hand	278	299	21	7.60%	** \$20,442

30 Occupations Sorted By Projected 10-year Growth Rate

Occupations	2002	2012	Change	% Change	2004 Avg Salary
Construction Trades' Helpers, All Other	1	3	2	200.00%	** \$24,378
Writers And Authors	1	2	1	100.00%	** \$43,337
Substance Abuse And Behavioral Disorder Counselors	4	8	4	100.00%	** \$30,464
Art Directors	1	2	1	100.00%	** \$59,608
Cartographers And Photogrammetrists	1	2	1	100.00%	** \$46,161
Gaming Managers	1	2	1	100.00%	** \$60,838
Mining And Geological Engineers, Including Mining Safety Engineers	1	2	1	100.00%	** \$62,221
Database Administrators	4	6	2	50.00%	** \$57,843
Financial Analysts	4	6	2	50.00%	** \$73,530
Umpires, Referees, And Other Sports Officials	4	6	2	50.00%	** \$22,571
Network Systems And Data Communications Analysts	4	6	2	50.00%	** \$61,415
Fence Erectors	2	3	1	50.00%	** \$26,214
Correspondence Clerks	2	3	1	50.00%	** \$27,897
Electrical And Electronics Repairers, Commercial And Industrial Equipment	2	3	1	50.00%	** \$45,396
Mechanical Drafters	2	3	1	50.00%	** \$40,753
Computer Software Engineers, Systems Software	2	3	1	50.00%	** \$80,428
Audiologists	2	3	1	50.00%	** \$42,186
Interior Designers	4	6	2	50.00%	** \$49,861
Broadcast Technicians	2	3	1	50.00%	** \$37,986
Fitness Trainers And Aerobics Instructors	22	32	10	45.50%	** \$31,651
Dietitians And Nutritionists	10	14	4	40.00%	\$48,813
Musicians And Singers	8	11	3	37.50%	** \$47,641
Financial Specialists, All Other	14	19	5	35.70%	\$59,666
Pharmacy Technicians	95	128	33	34.70%	\$25,285
Pharmacists	83	111	28	33.70%	\$76,990
Radiation Therapists	3	4	1	33.30%	** \$54,526
Automotive Glass Installers And Repairers	3	4	1	33.30%	** \$30,329
Sewing Machine Operators	6	8	2	33.30%	** \$20,152
Insulation Workers, Floor, Ceiling, And Wall	3	4	1	33.30%	** \$31,622
Medical Equipment Repairers	3	4	1	33.30%	** \$44,990

30 Occupations Sorted By Estimated 2004 Average Annual Salary

Occupations	2002	2012	Change	% Change	2004 Avg Salary
Chief Executives	21	23	2	9.50%	\$96,802
Physician Assistants	6	7	1	16.70%	\$84,012
Sales Managers	24	28	4	16.70%	\$80,229
Pharmacists	83	111	28	33.70%	\$76,990
Elementary And Secondary School Administrators	56	60	4	7.10%	\$73,373
General And Operations Managers	322	356	34	10.60%	\$70,028
Medical And Health Services Managers	76	89	13	17.10%	\$66,260
Public Relations Specialists	18	21	3	16.70%	\$66,008
Financial Managers	55	61	6	10.90%	\$65,292
Construction Managers	42	46	4	9.50%	\$63,303
Supervisors And Managers Of Non-Retail Sales Workers	34	39	5	14.70%	\$63,037
Natural Sciences Managers	6	7	1	16.70%	\$62,023
Managers, All Other	123	128	5	4.10%	\$59,888
Physical Therapists	26	31	5	19.20%	\$59,787
Financial Specialists, All Other	14	19	5	35.70%	\$59,666
Computer Systems Analysts	18	20	2	11.10%	\$59,364
Environmental Scientists And Specialists, Including Health	6	7	1	16.70%	\$58,053
Civil Engineers	39	42	3	7.70%	\$57,303
Electrical Power-Line Installers And Repairers	47	51	4	8.50%	\$57,119
Foresters	38	40	2	5.30%	\$56,855
Supervisors And Managers Of Fire Fighting And Prevention Workers	22	23	1	4.50%	\$56,821
Supervisors And Managers Of Police And Detectives	28	30	2	7.10%	\$56,798
Supervisors And Managers Of Construction Trades And Extraction Workers	76	86	10	13.20%	\$54,901
Administrative Services Managers	30	32	2	6.70%	\$54,547
Instructional Coordinators	41	43	2	4.90%	\$52,820
Urban And Regional Planners	16	16	0	0.00%	\$52,618
Conservation Scientists	13	14	1	7.70%	\$52,577
Educational, Vocational, And School Counselors	37	41	4	10.80%	\$52,481
Accountants And Auditors	136	152	16	11.80%	\$52,241
Business Operations Specialists, All Other	117	135	18	15.40%	\$51,959

Regional Strengths and Barriers²⁹

This list of regional strengths and barriers is the work of the Coos, Curry and Douglas Business Development Corporation. Prepared in the early part of this decade, they still resonate today.

Unique/Significant Resources:

- Traditional natural resources industry base: forestry, fisheries, agriculture
- Proximity to California markets
- Quality of Life attributes: diverse coastal, inland, mountain terrain; moderate climate; recreation and isolation opportunities
- Diverse, unspoiled tourism product, especially eco-tourism and heritage tourism products
- Capable economic development organizations
- Attractive work/lifestyle
- Ports
- Timber industry anchor
- Motivated Work Force
- Favorable West Coast location
- Inventory of land zoned for industry
- Community support/partnerships
- Well-developed education system through the community college level
- A variety of human resource training programs available
- Financial institutions ready to assist

Economic Development Implementation Barriers:

- Seasonal nature of resource industry work
- Lack of diversified employment base (beyond natural resource industries)
- Insufficient living wage jobs
- Distance from major metro markets
- Large federal land ownership
- Transportation access limitations (especially from I-5 to the Coast)
- Inadequate ready-to-occupy industrial sites
- Vulnerability to environmental concerns
- Declining timber, agriculture and fisheries industry job base
- Inadequate infrastructure (highways, marine, air)
- Inadequate local public works (sewer, water) in many communities
- Limited inventory of suitable sites, facilities
- Lack of diversity in work force (training, skills)
- Insufficient number of jobs
- Absence of a four-year college
- Insufficient debt and equity capital
- Insufficient management assistance for start-ups, expansion
- Lack of central information source with state agencies, other regulating entities
- Heavy reliance on timber industry for living wage jobs

- Lack of Natural Gas in parts of the region
- Aging rail infrastructure
- Lack of modern telecommunications infrastructure
- Lack of sufficient economic and community development resources in some areas in the region

“The region's current state of economic planning and development suffers from duplication and funding disconnect. Numerous organizations carry on some form of regional planning activities, many with overlapping functions and unclear jurisdiction. There is a perceived disconnect between community needs and actual funding decisions, leading to questions as to whether timely information is being conveyed to our state and other funding partners. Finally, too much planning is taking place within a narrow, issue-specific scope -- there is no mechanism that ensures that planning takes place with a cross-discipline approach and that expensive, duplicative planning programs are curtailed or eliminated.”³⁰

Others have characterized the regional economic development planning process as “driving while looking in the rear-view mirror (from Interviews conducted over the course of this assessment process – see earlier section of this document).

Illegal Drugs

Methamphetamine fuels 85 percent of the state's property and identity-theft crimes and is the leading reason Oregon children are removed from their homes and placed in long-term foster care. Moreover, Oregon treats more people for meth addiction per capita than any other state in the country. The rise of meth use, devastating in its impact on fetal development, combined with improved neonatal medical care, means more children are being born with debilitating problems, and more are surviving. The result is a practical and financial dilemma for the state: a critical shortage of foster home providers who can handle complex medical needs. In March, according to the Oregon Department of Human Services, 2,394 children among the 6,824 in foster care were in need of specialized medical foster care, but only about 350 were getting it.^{31,32}

Oregon meth facts³³:

- In Oregon, meth has passed marijuana to become the second primary drug of abuse for adults in treatment.
- In one Oregon county, 34% of the children who are removed from meth labs have tested positive for meth from the residue that is produced.
- In 1993, 8% of the adults in treatment were there because of amphetamines. In 2002 this number increased to 19%.
- In one Oregon county, over 800 or 90% of the children in state care are the direct result of family drug abuse, in which the primary drug of abuse is meth.
- Oregon is currently a source state for meth across the United States.
- Meth is tied to almost all property and identity theft crimes in Oregon.
- In one Oregon county, 36% of the high school expulsions are a direct result of drug abuse.

Oregon's south coast has not escaped the scourge of meth.^{34,35,36} The implications include numerous arrests, widespread theft of property, abuse of children, increased medical costs and diversion of funds from other critical areas of need for Oregon's south coast.

Health Care Shortage Areas in Oregon³⁷

Many people within the state of Oregon have barriers to receiving primary care. For some it's the distance to care and lack of services in their area. For others, access to care may be unavailable because they are uninsured and have limited funds to pay for services or may not speak the language of area providers.

In order to help address these needs, Health Systems Planning applies for federal health care shortage designations. These designations target millions of dollars of federal resources to improve health care in underserved areas of the state. These designations are estimated to bring in over \$20M per year in unmatched federal resources.

The Oregon Department of Health Services (DHS) applies for three types of federal designations from the Bureau of Health Professions, Shortage Designation Branch. These designations are:

- Health Care Shortage Areas (HPSA),
- Medically Underserved Areas (MUA), and
- Medically Underserved Populations (MUP).

Three subgroups of HPSA designations exist:

- Primary Care
- Dental
- Mental Health

All subgroups of HPSA can cover a geographic area or a special population. Special populations include migrant and/or seasonal farm worker, and/or homeless and/or low-income populations (below 200 percent of the Federal Poverty Level). About 48 federal programs and some state programs are tied to these designations.

Historically, MUA/MUP designations were created for funding eligibility of Community Health Center programs and HPSA designations were created for distribution National Health Service Corps (NHSC) resources. HPSA designations are updated every three years.

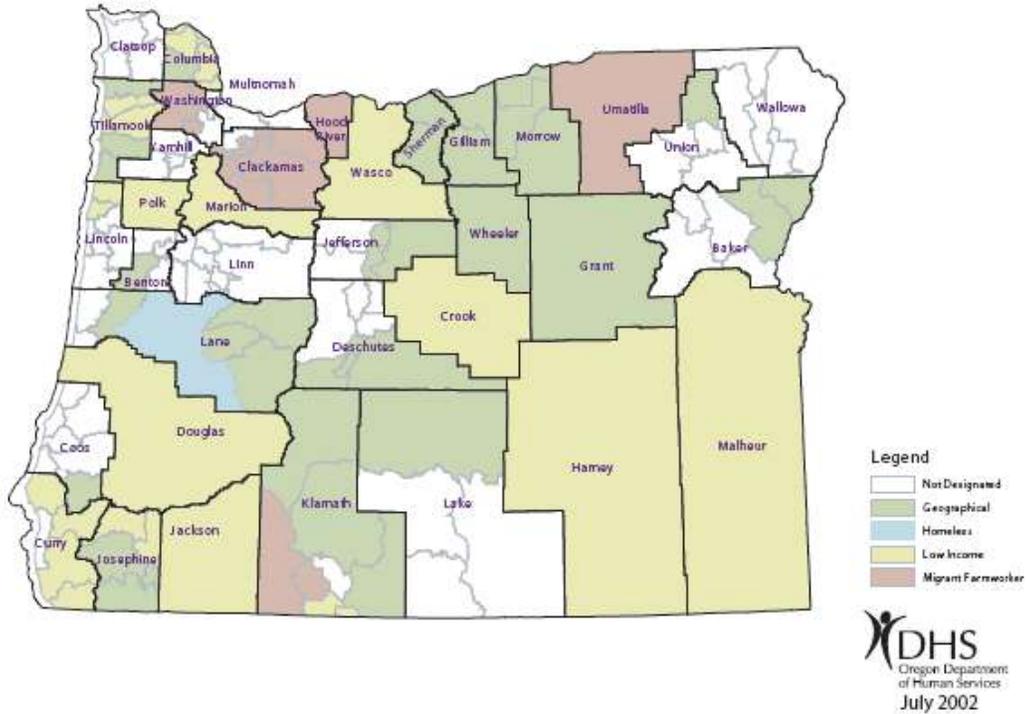
A sample of programs currently related to these designations is listed below:

- Community Health Center funding - MUA/MUP
- National Health Service Corps - HPSA
- Rural Health Clinic Certification - Primary Care HPSA, MUA, not MUP (this information is date sensitive)
- Oregon Conrad Program - Primary Care HPSA, MUA, MUP and Mental Health HPSA (for psychiatrists)

- Remote Supervision of Oregon physician assistants - HPSA, MUA or MUP

Criteria for HPSA designation include provider to population ratio and distance to the next source of care. Indicators included in MUA/P designations are percent of population under 100% FPL, percent of population over 65 years of age, the infant mortality rate and provider to population ratio.

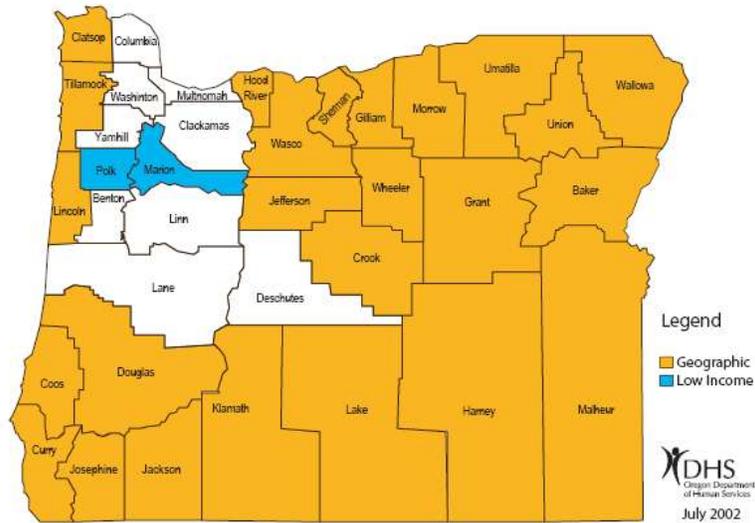
Oregon Primary Care Healthcare Shortage Areas³⁸



Oregon Dental Health HPSA's³⁹



Oregon Mental Health HPSA's⁴⁰



Universities and Community Colleges in Southwest Oregon



Hospitals in Southwest Oregon



South Coast Workforce Opportunities

Two areas of employment growth stand out from the data.

Healthcare - Nurses and Other Healthcare Service Providers

Directly related to the influx of retirees and the aging of “boomers,” the demand for services in this category is destined to grow. Analysts believe that this sector is on track to become the top growth engine of jobs in the region’s economy.

Retail

The rebound in tourism spending and the influx of seniors with disposable income have helped the South Coast. Additional retail outlets are planned with the strong possibility of additional big box venues, such as the Home Depot.

South Coast Distance Education Stakeholders

Quite literally education touches the lives of everyone in the region and, in a number of instances, even beyond the region. It would not be unfair to point to the region's telephone books for a listing of stakeholders. Here we site some of the more obvious categories and realize that likely we have left critical entities out of this list. Contact information is readily available through telephone books and online.

Businesses

- Retail
- Tourism

Chambers of commerce

Construction industry

Economic development organizations:

- Oregon Coastal Zone Economic Development Association
- Oregon Economic and Community Development Department
- South Coast Development Council

Elected officials

Emergency service providers

- Fire departments
- Emergency medical technicians

Forestry and forestry products industries

Healthcare clinics and care facilities (e.g., long term care, adult foster homes, convalescent facilities)

Law enforcement

- Local police departments
- Sheriff departments
- Oregon State Patrol

Libraries

- Coos County Libraries
- Curry County Libraries
- Reedsport Library

Oregon Department of Education

Oregon Public Education Network

Oregon University System: Southwestern Oregon University Center

Parents

Ports

- Brookings
- Gold Beach
- Port Orford
- Port of Bandon
- International Port of Coos Bay
- Port of Umpqua
- Winchester Bay (not a port, per say, it is a facility that is run by Douglas County)

Public health departments

Region hospitals:

- Bay Area Hospital, Coos Bay
- Coquille Valley, Coquille
- Curry General, Gold Beach
- Lower Umpqua, Reedsport
- Peace Harbor, Florence
- Southern Coos, Bandon

South Coast ESD, school districts and school boards:

- South Coast Education Service District
- Bandon School District
- Brookings/Harbor School District
- Central Curry School District
- Coos Bay School District
- Coquille School District
- North Bend School District
- Myrtle Point School District
- Powers School District
- Port Orford/Langlois School District
- Reedsport School District

Southwestern Oregon Community College

Students

Unions

Workforce development organizations:

- OneStop centers
- Oregon Employment Department
- South Coast Business Employment Corporation

DE Survey Results and Comments

Approach

Three surveys evaluated distance education (DE) trends and needs in the south coast region (Coos, Curry and western Douglas counties): Faculty and Distance Education Partners, Students and Stakeholders.

<i>Category</i>	<i>Distributed</i>	<i>Returned</i>	<i>% Returned</i>
Southwestern Employees (including f/t and p/t faculty, administrators and classified) & Educational Partners	222 + 143 = 365	63	17.3%
Students	256	40	15.6%
Community Stakeholders	100	12	12.0%
Total:	721	115	16%

Many trends in higher education will influence the future of DE. DE journals have established the need for administrators to be informed and prepared with strategic plans equal to foreseeable challenges. Surveys complement information gathered from a variety of other sources, for example, demographic analysis or economic projections. Decision makers often rely on long-term demographic and economic projections, based on current trends and foreseeable influences, in their strategic planning. These tools are essential in planning DE. However, they alone are not sufficient. Other major influences complicate the issue, such as the rapid advancement of technology, shifts in higher education audiences and student profiles, faculty members' reactions, adapting campus cultures, and unsettled tensions between administrators, faculty members, and DE leaders. These and many other factors can compound one another in ways difficult to predict.

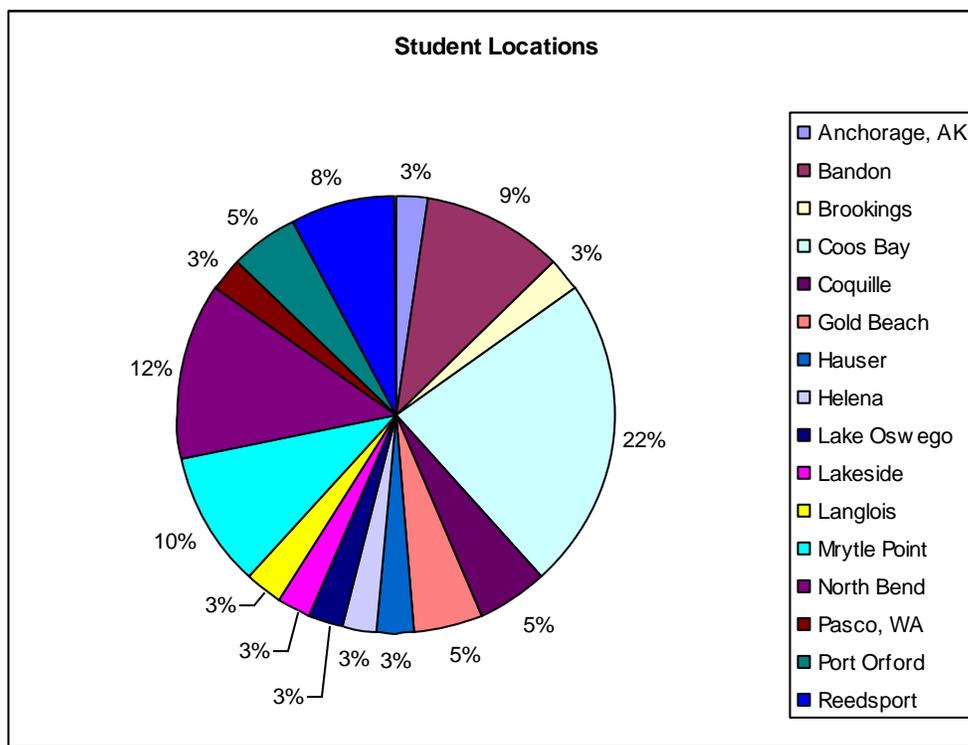
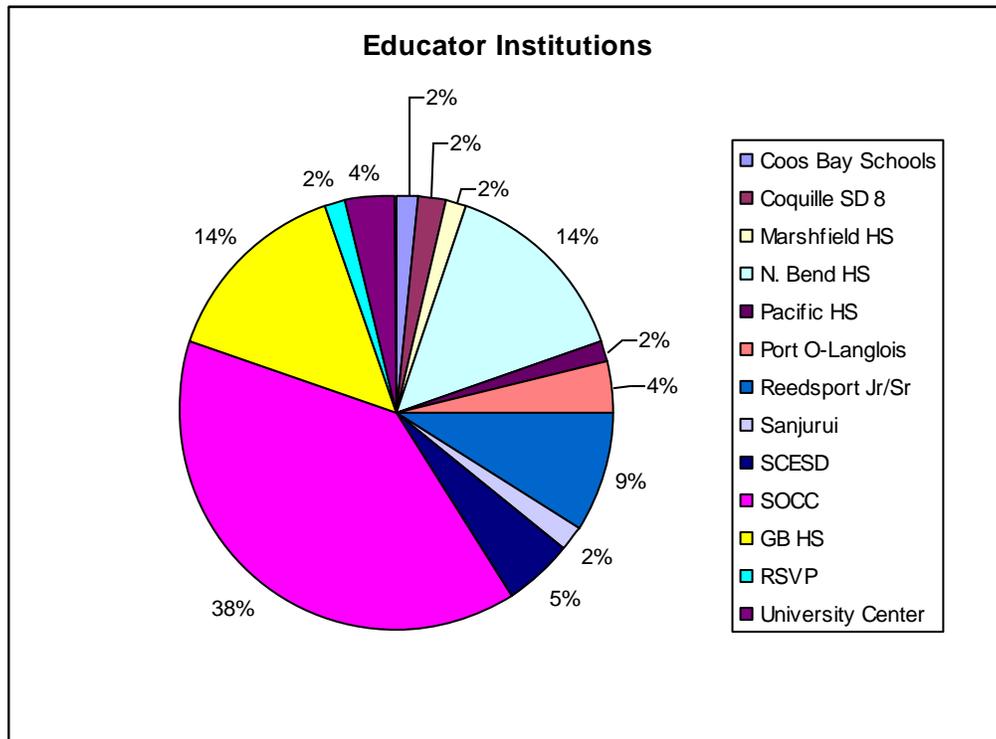
Regional DE planners will strengthen their strategic planning efforts by continually identifying and understanding trends for student enrollments, faculty support, and larger academic, technological and economic issues. The three surveys addressed National trends that affect DE. The trends are organized into categories as they pertain to students and enrollment, faculty members, academics, technology, the economy, and distance learning.⁴¹ In these surveys we also ask for specific suggestions / requests that would foster a building on the DE investment in place throughout the south coast region.

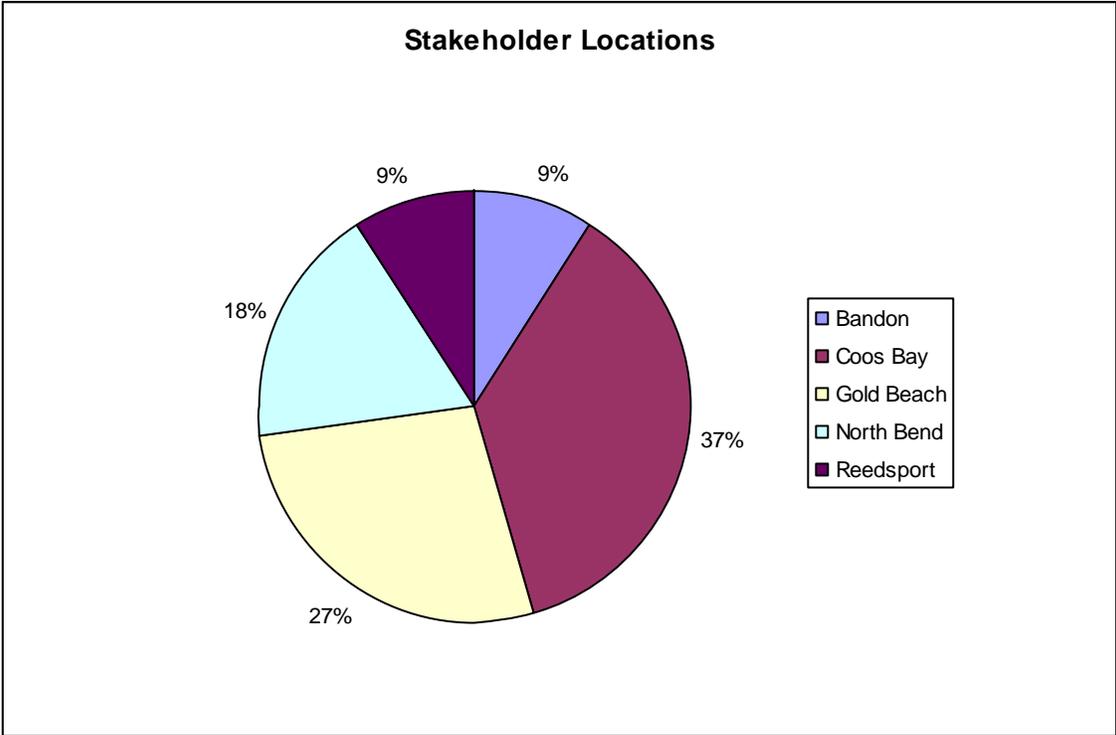
Survey topics:

<i>Evaluation Category</i>	<i>Partner Survey Questions</i>	<i>Student Survey Questions</i>	<i>Community Stakeholder Questions</i>
Definition of DE	1	1	1
Trends			
Student/Enrollment	2 - 5	2	2 - 5
Faculty	6 - 10	-	6 - 8
Academic	11 - 15	3 - 6	9 - 13
Technology	16	7	14

<i>Evaluation Category</i>	<i>Partner Survey Questions</i>	<i>Student Survey Questions</i>	<i>Community Stakeholder Questions</i>
Economic	17	8	15
Distance Education	18 - 20	-	16
Online Course Offerings			
Course Overview and Introduction	-	9	-
Learning Objectives	-	10	-
Assessment and Measurement	24 - 25	17 - 18	17
Resources and Materials	21	11	-
Student Interaction	22	12	-
Course Technology	-	14	-
Student Support	-	15 - 16	-
ADA Compliance	23	-	-
Tools and resources	32	-	-
DE Access and Participation			
DE Access locations	26	19	18
DE course participation	27	20	19
Courses taken (past 2 years)	-	23	-
Online services needed	35 - 36	28	-
High-speed Internet access	-	29	-
Priorities			
Top 3 priorities for DE	28	21	20
Additional courses	29	22	21
Opportunities/Barriers	30 - 31	24 - 25	22 - 23
Needs	33 - 34	26 - 27	-
Open ended request for comments			
Additional comments	37	30	24

Areas Responding to the Surveys





Survey questions – All Groups

Legend: Ed = Educators/faculty/administrators
 St = Students
 Sr = Stakeholders

SA = Strongly Agree
 MA = Moderately Agree
 NO = No Opinion
 MD = Mildly Disagree
 SD = Strongly Disagree

Survey Question/Commentary	#			SA	MA	NO	MD	SD
	Ed	St	Sr					
Student/Enrollment Trends								
Current curriculum offerings cannot accommodate the growing college-level and life-long learning populations and enrollments, making more DE programs necessary.	2			57	29	8	6	0
			2	75	25	0	0	0
<i>Comments: The largest high school class in U.S. history will occur in 2009. In corroboration of this projection, a survey conducted by the US Department of Education, National Center for Education Statistics predicted that college enrollment will grow 16% over the next ten years. Because college and university attendance are not restricted to this ‘traditional’ age group, this presents only a partial measurement of the projected demand for higher education. With this growth in college-age population and enrollments and the need for more lifelong learning for adults, many institutions acknowledge that within the decade there will be more students than their facilities can accommodate. Scalable distance-education models may provide a solution to capacity constraints growing enrollments place on the current higher education infrastructure.⁴²</i>								
<i>Educators (86%) and stakeholders (100%) strongly agree or moderately agree with the question. However, 14% of educator respondents take exception to the question and the conclusion. This resonates with other survey and interview findings indicating some of the regions educator’s resistance to the march toward greater uses of educational technology. Yet this should not be taken as an “alarming” finding. Rather it points to the transition that’s underway and the opportunity to educate educators on the role and usefulness of educational technology.</i>								

Survey Question/Commentary	#			SA	MA	NO	MD	SD
	Ed	St	Sr					
Student/Enrollment Trends (continued)								
Students are shopping for courses that meet their schedules and circumstances.	3			71	24	3	2	0
		2		77	20	3	0	0
			3	83	17	0	0	0
<p><i>Comments: More and more learners are requiring flexibility in program structure to accommodate their other responsibilities, such as full-time jobs or family needs. With these constraints, students shop for courses that best accommodate their schedules and learning styles, and then transfer the credit to the university where they will earn their degrees. Some refer to this notion of acquiring and exchanging credit at different institutions than the one they receive their degree from as “academic currency” and note that it is growing—as of 1999, 77% of all students graduating with a baccalaureate degree had “attended” two or more institutions. Students’ demand is being supported and answered. In 1998, 83% of governors identified “allowing students to obtain education anytime and anyplace via technology” as a critical characteristic of universities in the twenty-first century. Given the demand and response, education is becoming a commodity, making consumers of students and putting them in a position to shop for the best deal. One result of the highly competitive e-learning market will be institutions that specialize in meeting particular niches in the market. We can see the beginnings of the trend toward the unbundling of courses, credits, services, and fee structures. The transition may also blur the distinction between two- and four-year colleges and universities. In this context of greater “portability,” more educational “brokers” (e.g., Western Governor’s University, Excelsior College, Charter Oak State College, etc.) will exist. Institutional success for any higher education enterprise will depend more on successful marketing, solid quality-assurance and control systems, and effective use of the new media than on production and communication of knowledge.⁴³</i></p> <p><i>Distance education is a two-edged sword in that while it opens up opportunities for students to shop to meet their needs, it also puts an additional burden on a local institution to compete to stave off the potential for declining enrollment and loss of revenues. Competition in the educational market is heating up with a variety of offerings emerging to meet student needs. Some see this as a threat, others as an opportunity to build revenue opportunities.</i></p>								

Survey Question/Commentary	#			SA	MA	NO	MD	SD
	Ed	St	Sr					
Student/Enrollment Trends (continued)								
Student profiles are changing.	4			63	34	3	0	0
			4	41	42	17	0	0
<p><i>Comments: Online students are becoming an entirely new subpopulation of higher-education learners. They are generally older, have completed more college credit hours and more degree programs, and have a higher all-college GPA than their traditional counterparts. For example, online students receive twice as many A's as traditional students and half as many D's and F's.</i></p> <p><i>The modern, traditional-age college students are unlike past generations. They are “interested in [qualifications from] small modules and short programs ... and in learning that can be done at home and fitted around work, family, and social obligations. Information-age learners prefer doing to knowing, trial-and-error to logic, and typing to handwriting. Multitasking is a way of life for them, staying connected is essential, and there is zero tolerance for delays. Further, modern literacy includes not only text but also image and screen literacy—it involves navigating information and assembling knowledge from fragments.</i></p> <p><i>Today's adult learners differ still from traditional college-age students. They tend to be practical problem solvers. Their life experiences make them autonomous, self-directed, and goal- and relevancy-oriented—they need to know the rationale for what they are learning. They are motivated by professional advancement, external expectations, the need to better serve others, social relationships, escape or stimulation, and pure interest in the subject. Their demands include time and scheduling, money, and long-term commitment constraints. They also tend to feel insecure about their ability to succeed in distance learning, find instruction that matches their learning style, and have sufficient instructor contact, support services, and technology training.⁴⁴ (See Appendix I- 21st Century Education, Technology and the Role of Distance Education for a more detailed discussion of nuances of the differences between the Net Generation, Traditional and Non-traditional learners.)</i></p>								

Survey Question/Commentary	#			SA	MA	NO	MD	SD
	Ed	St	Sr					
Student/Enrollment Trends (continued)								
The percentage of adult, female, and minority students is increasing.	5			41	39	16	2	2
			5	41	42	17	0	0
<p><i>Comments: Approximately 42 percent of all students at both private and public institutions are age 25 or older. Not only are they numerous, adult learners are the fastest-growing population in higher education. While the number of 18-24-year-old students increased only 41% between 1970 and 2000, the number of adult students increased 170%. Some factors that might influence this phenomenon include the growth of continuing education programs, economic necessity, the rapidly changing job market, changes in the economy, and the simple aging of student populations. Like growth in adult learners, the percentage of women and minority learners is increasing. More women than men now enroll in college (57% of students are women), a trend supported by the fact that more women are entering the workforce. Among minorities, the proportion of women is even higher: 60% of Hispanic and two-thirds of African-American college students are women. If enrollment follows population projections, higher education can expect this trend to continue—the Hispanic population in the U.S. is expected to increase 63% by 2020, reaching 55 million people.⁴⁵</i></p> <p><i>There is a significant change occurring in the population on the coast, including increases in the number of Hispanic persons. In many ways it is at this time a “stealth” community. Yet interviews plus census data indicates it is a real change. The needs of the emerging Hispanic community on the south coast need to be factored into educational offerings. Many respondents recognize this reality, others appear to be in denial or just not informed.</i></p> <p><i>Interviews revealed a strong belief that DE significantly serves the educational needs of females on the south coast. Data from SOCC enrollments in DE supports the view as women enrollments are in a 2:1 or better ratio.</i></p>								

Survey Question/Commentary	#			SA	MA	NO	MD	SD
	Ed	St	Sr					
Faculty Trends								
The role of faculty members in DE requires specialized skills and strategies.	6			76	21	3	0	0
<i>Comments: Rather than incorporating the responsibility for all technology- and competency-based functions into a single concept of ‘faculty member,’ universities are disaggregating faculty instructional activities and [assigning] them to distinct professionals. Doing this involves a deliberate division of labor among the faculty, creating new kinds of instructional staff, or deploying nontenure-track instructional staff (such as adjunct faculty, graduate teaching assistants, or undergraduate assistants) in new ways. Distance education teams include administrators, instructional designers, technologists, and instructors/facilitators. The functions of instructors and facilitators then include being a facilitator, teacher, organizer, grader, mentor, role model, counselor, coach, supervisor, problem solver, and liaison. The role of faculty members in distance education requires some specialized skills and strategies. Distance education instructors must plan ahead, be highly organized, and communicate with learners in new ways. They need to be accessible to students [and] work in teams when appropriate. Distance faculty members must be experts in maintaining communication, because there is increased demand for student interaction in distance learning. Finally, they may have to assume more administrative responsibilities than is true in a residential model.⁴⁶</i>								
<i>Given the responses from students regarding the quality of the current DE offerings as well as interviews with educators, one has to draw a conclusion that this self-rating of skills adequacy is subject to further understanding, especially in light of responses from educators (see next question) indicating a need for additional preparation in use of the technology. Acquiring the skills necessary to “push the buttons” is not the issue here. Rather, translating curriculum into use in either an IPV or WebCT setting requires an increased understanding of how to craft the material for use in these distribution modes.</i>								

Survey Question/Commentary	#			SA	MA	NO	MD	SD
	Ed	St	Sr					
Faculty Trends (continued)								
The need for faculty development, support, and training is growing.	7			80	18	2	0	0
			6	83	0	17	0	0
<i>Comments: Faculty members tend initially to try to use their conventional classroom methods to teach at a distance and then become frustrated when attempts are unsuccessful. In Green's survey of the role of computing and information technology in U.S. higher education, chief academic and information technology officials rated helping faculty integrate technology into their instruction the single most important IT issue confronting their campuses over the next two or three years. An EDUCAUSE survey supported the issue's importance: faculty development, support, and training were rated the fifth overall strategic concern, as well as the fifth IT issue most likely to become even more significant in the next year. However, despite IT leaders' rising concern over the issue, it is not yet among their top ten uses of time or resources.⁴⁷</i>								
<i>These educator responses are somewhat at odds with the previous question's responses. There is a need for increased preparation of educators to deliver either IPV or WebCT offerings.</i>								
Faculty tenure is being challenged, allowing for more non-traditional faculty roles in DE.	8			19	37	34	5	5
<i>Comments: Faculty tenure status is coming under more fire as new state, private, and for-profit distance-learning universities are created. For example, Florida Gulf Coast University, a new distance-learning state university, and BYU-Idaho, a private four-year university, will not have tenured faculty members. The results of de Alva's 2000 survey support this trend: governors rated maintaining traditional faculty roles and tenure as the least desirable characteristic of a twenty-first century university. Since distance educators and administrators must secure instructors and course content experts, access to on-campus professors and their arrangements with the university become significant factors affecting distance education. Contributions to distance education rarely move faculty members toward tenure; therefore, dissolving tenure might make them more likely to participate in distance education efforts.⁴⁸</i>								
<i>Labor management/union issues are soon to emerge, if not already in the mix.</i>								

Survey Question/Commentary	#			SA	MA	NO	MD	SD
	Ed	St	Sr					
Faculty Trends (continued)								
Some faculty members are resisting technological course delivery.	9			28	56	11	5	0
			7	17	42	33	8	0
<i>Comments: As long as distance education contributions are not considered in tenure and promotion decisions, and as long as professors have their own, traditional ways of delivering their courses, many faculty members will be reluctant to participate in online courses. Concerning this reluctance, predictions that many faculty members will revolt against technological course delivery and the emerging expectations their institutions will have of faculty members. Some of the resistance will even be manifest through unionization and strikes. Some have suggested the labor-intensive and time-consuming demands required to develop online modules as reasons for faculty resistance.⁴⁹</i>								
<i>Educators (84%) and stakeholders (59%) agreed to this statement. A further understanding of the roots of this resistance is needed to address issues before they rise to the level of a crisis. Possible issues are the lack of preparation to deliver DE offerings and increased workloads without increased compensation.</i>								
Faculty members require adjusted workloads and increased compensation for DE courses.	10			42	33	17	8	0
			8	33	25	42	0	0
<i>Comments: An NEA survey reported that faculty members' top concern about distance education was that they will do more work for the same amount of pay, apparently a merited concern. The NEA found that most faculty members do spend more time on their distance courses than they do on traditional courses, and 84% of them do not get a reduced workload. Similarly, 63% of distance faculty members receive no extra compensation for their distance courses. A UCEA survey of four-year institutions found that 64% of faculty members were compensated for distance courses with normal, on-campus salary; 74% were additionally given development stipends. However, 82% of respondents added a qualifier about how compensation for distance learning depended on the type of course, the rank of the faculty member, and other factors.⁵⁰</i>								
<i>Educators (75%) and stakeholders (58%) agreed with the question, indicating an issue in the works. Taken with the previous 4 questions there is an indication of effort ahead to work with faculty to bring them into a greater level of comfort with their roles with DE.</i>								

Survey Question/Commentary	#			SA	MA	NO	MD	SD
	Ed	St	Sr					
Academic Trends								
The institutional landscape of education is changing: traditional schools and campuses are declining, for-profit institutions are growing, and public and private institutions are merging.	11			26	41	23	8	2
			9	33	42	8	17	0
<i>Comments: Changes in the institutional landscape may magnify competition among educational providers and allow new models and leaders to emerge. For-profit institutions are the fastest-growing sector in education. Currently, only 4 to 5% of all higher-education students are enrolled with for-profit providers, but 33% of all online students are enrolled with these same providers. This phenomenon could have a dramatic impact on higher education: The private sector will concentrate on those areas where profits are most easily made, such as business programs and information technology courses. However, it will leave those areas that cannot pay their way, such as many arts and social science programs, and possibly health science because of the high cost, to the public sector. With the loss of cross-subsidy, the higher education sector will be in even more financial trouble. However, accompanying the growth in Internet usage, for-profits' practice as "picking the low hanging fruit" by offering the more marketable courses, e.g., business, computer science, etc., and leaving the "heavy lifting" type of courses to traditional academe. Expect projected changes in higher education's landscape over the next 20 years. The number of degree-granting institutions will continue to grow, while the number of traditional campuses will decline. By 2025, half of today's existing independent colleges will be closed, merged, or significantly altered in mission. Another aspect changing in higher education is the blurring line between public and private universities, especially in the financial arena. The distinctions between and among public and private, for-profit and nonprofit institutions of higher education will largely disappear. This blurring is already taking place.⁵¹</i>								
<i>Responses to this question indicate a growing awareness of this measurable change in the institutional landscape. It also points to a growing opportunity for institutional revenue.</i>								

Survey Question/Commentary	#			SA	MA	NO	MD	SD
	Ed	St	Sr					
Academic Trends (continued)								
Instruction is becoming more student-centered, non-linear, and self-directed.	12			32	48	16	2	2
		3		28	51	13	5	3
			10	33	59	0	8	0
<i>Comments: Instructional approaches are becoming more learner-centered: recursive and non-linear, engaging, self-directed, and meaningful from the learner’s perspective. Whereas in the past, most instructors followed a “transmission” or lecture-style approach to teaching, more instructional diversity is occurring among teachers who are trying a larger variety of approaches. A pedagogical shift is likewise occurring within distance education, moving from a transmission model to constructivist, sociocultural and metacognitive models. These models use computer-mediated communication and emphasize students’ responsibility for their own learning. Stated differently, distance education can be seen to be evolving from an essentially modernist (bureaucratic or Fordist) form of education into a post-modernist phenomenon with a focus on the student as consumer, on flexibility and global reach. With this transition, there is also a shift toward increased accessibility for those who are disabled. Many feel that eLearning holds great promise for learners with physical and mental challenges.⁵²</i>								
<i>Educators (80%), students (79%) and stakeholders (92%) agree to this emerging trend. One wonders as to the opinions of school boards. Yet even as this trend is emerging (and some argue “has been emerging for some time), many universities still are not adequately addressing this component in their preparation of teachers. Addressing the training needs of recently graduated teachers and tenured faculty means that at least for the foreseeable future institutions may very well have to create their own certification programs to ensure quality and consistent delivery of DE courses.</i>								

Survey Question/Commentary	#			SA	MA	NO	MD	SD
	Ed	St	Sr					
Academic Trends (continued)								
Academic emphasis is shifting from course-completion to competency (i.e., certification is becoming more preferable than a degree).	13			15	44	32	6	3
		4		8	26	38	13	15
			11	33	17	25	17	8
<i>Comments: There is a slight shift from “theoretical” and “seat-based time” to “outcomes-based” or “employer-based” competency. In many cases, certification is becoming more preferable than a degree. Diplomas are less meaningful to employers; knowledge, performance, and skills are what count to them. 66% of governors identified “integrating applied or on-the-job experience into academic programs” as a critical characteristic of universities in the 21st century. With an emphasis on competency, course content will be dictated more by what learners need, [than] by what has been traditionally done.⁵³</i>								
<i>Educators (76%), students (64%) and stakeholders (50%) indicating agreement demonstrate the wide variation in opinions that exist. Interviews with regional educators confirmed this result. Yet in interviews with regional stakeholders, all agreed with the statement. They saw this as a quick way for workforce to move ahead in the trades and at the entry-level healthcare positions. Some have argued in nationally presented papers that there is an institutional bias in K-12 and higher learning against vocational training as well as certificate programs.</i>								

Survey Question/Commentary	#			SA	MA	NO	MD	SD
	Ed	St	Sr					
Academic Trends (continued)								
Education is becoming more seamless between high school, college, and further studies.	14			16	47	24	8	5
		5		10	44	43	0	3
			12	34	25	25	8	8
<i>Comments: As universities shift toward competency and institutions cater more closely to learners' specific needs, the distinctions between high school, undergraduate college, and graduate programs will dissolve. Incentives will be given to students and institutions to move students through at a faster rate [and] the home school movement will lead to a home-college movement. As leaders in the effort to cater to learners' needs, distance education programs may be a dominant influence in this trend.⁵⁴</i>								
<i>Of interest here is the number of folks who hold no opinion on the topic – educators (24%), students (43%) and stakeholders (25%) indicates an opportunity for improvement on this topic. The recently passed Oregon SB 300 could have an impact on this topic.</i>								

Survey Question/Commentary	#			SA	MA	NO	MD	SD
	Ed	St	Sr					
Academic Trends (continued)								
The south coast has a good track record of partnering between the educational service district, the Oregon University System, regional workforce development, the community college and other regional education providers.	15			29	38	23	10	0
		6		20	42	35	3	0
			13	17	58	25	0	0
<i>Comments: Colleges are traditionally independent, freestanding, and competitive. On the other hand, distance-learning institutions have been more cooperative and accommodating with partner institutions. Interestingly, traditional universities are becoming more like distance learning universities and not the opposite. With this shift, more institutions are creating partnerships with other colleges, universities, companies, and other kinds of institutions to share technology and to produce and deliver courses. It is predicted that higher education teaming will be successful: by 2005, partnerships and outsourcing will produce courseware applications covering the 25 college courses that enroll 50% of all credits. However, partnerships present obstacles as well as benefits. Winning accreditation, providing student services, setting tuition, figuring out finances, and transferring course credits are among the thorny issues that administrators find themselves struggling to face collectively.⁵⁵</i>								
<i>The role for partnerships was reinforced in interviews and three focus sessions. There's a strong belief that this is an emerging opportunity to build on existing relationships and to shed "histories" that have held back the full potential of these arrangements. Throughout the south coast region there has been a substantial turnover in superintendents with a new president arriving at SOCC. There is a palpable energy for increasing the role of partnerships that emerged throughout the interviews. Additionally, there is a sense of looking to the new SOCC president as a source of leadership toward increased levels of cooperation and collaboration in the region.</i>								

Survey Question/Commentary	#			SA	MA	NO	MD	SD
	Ed	St	Sr					
Technology Trends								
Technological fluency is becoming a graduation requirement.	16			34	43	15	8	0
		7		59	32	3	3	3
			14	76	8	8	8	0
<i>Comments: Ubiquitous technology may continue to increase the options available for distributing distance education to more people in a scalable fashion, especially if it is accompanied by technological fluency. The increase in Internet usage includes competence as well as sheer numbers: by 2005, computer competence will approach 100% in U.S. urban areas. The networked world is dominating the economy, increasing the power of the individual, and changing business models—no one can afford to be without computer competence. Accordingly, schools are beginning to list the fluent use of technology as an outcome skill, encourage students to take online courses, and even requiring students to take at least one online course before they graduate.⁵⁶</i>								
<i>There is a strong concurrence of opinion on this theme as evidenced by the emerging role of technology in the classrooms of k-12 schools. It certainly is considered of high importance by hiring managers.</i>								

Survey Question/Commentary	#			School Labs **	Home	Libraries	Dorms	Community Centers
	Ed	St	Sr					
Access to the Internet	26			65	81	37	42	21
		19		65	93	43	43	0
			18	42	92	50	33	42
<p><i>Comments: Interestingly, educators and stakeholders believe that students access their DE at Community Centers, in stark contrast to Students (0%). Question is – where are these community centers located? Are these libraries or other locations? Interviews identified the SOCC facilities as one of the learning centers.</i></p> <p><i>Of interest is the high percentage of students that worked from their homes. Note the percentage of students (43%) who indicated taking DE from the on campus living quarters. Also noted is that students did not identify Community Centers as where they get their access.</i></p>								

** Percentages do not add up to 100% as each category is computed as a percent of the total responses.

Survey Question/Commentary	#			Home	School	Libraries	Community Centers	Dial-up At Home
	Ed	St	Sr					
Technology Trends (continued)								
Access to high-speed Internet			29	55	53	45	0	38
<i>Comments: This finding re-enforces the non-use of Community Centers by students.</i>								
<i>Students in the Coos Bay area have greater access to high-speed connectivity. This was reflected in the responses. Note that again the students did not identify Community Centers as a resource.</i>								

Survey Question/Commentary	#			SA	MA	NO	MD	SD
	Ed	St	Sr					
<i>Economic Trends</i>								
Lifelong learning is becoming a competitive necessity.	17			74	24	2	0	0
		8		62	23	15	0	0
			15	50	42	8	0	0
<i>Comments: Some have estimated that people change careers, on average, every 10 years. Labor Department officials estimate that approximately 40% of the workforce change jobs every year. Undoubtedly, the changing nature of the workforce in the Information Age will require a continuous cycle of retraining and retooling. To add to the demands for a dynamic workforce, retirement will be delayed until late in life. In such circumstances, the opportunity for training is becoming one of the most desirable benefits any job can offer, and employers are coming to view employee training as a good investment. Accordingly, an increasing number of employers (85% of Fortune 500 companies) are paying for their employees to go back to school to stay current with changes. Alvin Toffler wrote, “The illiterate of the 21st century will not be those who can’t read and write. They will be those who can’t learn, unlearn, and relearn”. Considering these factors, some are concerned about how well higher education will be able to respond. Some of the changes accompanying the growing demand for lifelong learning will demand short accelerated programs, well-suited for online delivery, and portfolio credentials.⁵⁷</i>								
<i>Survey responses strongly supported awareness of this theme.</i>								

Survey Question/Commentary	#			SA	MA	NO	MD	SD
	Ed	St	Sr					
<i>Distance Learning Best-practices – posed primarily to students except for the last topic in this series.</i>								
Online offerings clearly state minimum technology requirements, minimum student skills, and, if applicable, prerequisite knowledge in the discipline.		9		30	52	8	10	0
<i>Comments: Students and faculty benefit when the overall design of the course, navigational information, as well as course, instructor and student information are made transparent to the student at the beginning of the course.</i>								
The learning objectives of courses are clearly stated and understandable to the student.		10		30	52	8	10	0
<i>Comments: Learning objectives need to be defined and explained clearly. They assist the learner to focus learning activities.</i>								
Resources and materials are easily accessible to and usable by the students.		11		47	35	13	5	0
<i>Comments: Students and faculty benefit when instructional materials are designed to be sufficiently comprehensive to achieve announced objectives and learning outcomes and are prepared by qualified persons competent in their fields (Materials, other than standard textbooks produced by recognized publishers, are prepared by the instructor or distance educators skilled in preparing materials for distance learning.)</i>								
The requirements for course interaction are clearly stated (for example, turn-around time for email, grades posted, etc.). The course design provides a variety of opportunities for interaction between instructor and learner.		12		30	52	8	10	0
<i>Comments: The effective design of instructor-learner interaction, meaningful learner cooperation, and learner-content interaction is essential to learner motivation, intellectual commitment and personal development.</i>								
All technologies required for a course are either provided or easily downloadable.		13		49	28	10	13	0
<i>Comment: To enhance student learning, course technology should be readily available to enrich instruction and foster learner interactivity.</i>								
Instructions on how to access resources at a distance are sufficient and easy to understand.		14		54	28	10	8	0
<i>Comment: To enhance student learning, course technology should be readily available to enrich instruction and foster learner interactivity.</i>								

Survey Question/Commentary	#			SA	MA	NO	MD	SD
	Ed	St	Sr					
<i>Distance Learning Best-practices (continued)</i>								
The course instructions state or link to a clear description of the technical support offered. Course instructions state or link to an explanation as to how the school or college’s academic support system can assist the student in effectively using the resources provided.		15		39	35	23	3	0
<i>Comments: Courses must be effectively supported for learners through fully accessible modes of delivery, resources, and learner support.</i>								
Resources and materials are easily accessible to and usable by the students.	21			11	37	24	26	2
<i>Comments: Students and faculty benefit when instructional materials are designed to be sufficiently comprehensive to achieve announced objectives and learning outcomes and are prepared by qualified persons competent in their fields (Materials, other than standard textbooks produced by recognized publishers, are prepared by the instructor or distance educators skilled in preparing materials for distance learning.)</i>								
Clear standards are set for instructor response and availability (turn-around time for email, grades posted, etc.)	22			8	76	8	8	0
<i>Comments: Learning objectives are clearly defined and explained. They assist the learner to focus learning activities.</i>								
There is evidence of some effort to recognize the importance of American Disabilities Act (ADA) requirements.	23			23	27	40	8	2
<i>Comments: Access to course resources is in accordance with the American with Disabilities Act.</i>								
Course instructions state or link to tutorials and resources that answer basic questions related to research, writing, technology, etc.		16		32	47	15	3	3
<i>Comments: Courses must be effectively supported for learners through fully accessible modes of delivery, resources, and learner support.</i>								
Students are encouraged to evaluate courses on completion of the offering.	25			18	35	42	2	3
		18		57	17	18	8	0
<i>Comments: Feedback from students is an opportunity to improve effectiveness of course design, instructor-learner interaction, meaningful learner cooperation, and learner-content interaction and is essential to enhancing learner motivation, intellectual commitment and personal development.</i>								

Survey Question/Commentary	#			SA	MA	NO	MD	SD
	Ed	St	Sr					
Distance Learning Trends								
DE is a convenient, flexible way for students to take classes when they are separated by time and/or space from the instructor (modes of DE are: Online courses, two-way Videoconferencing (IPV) courses, Telecourses (video broadcasts), Teleweb (video broadcast plus online) courses and blended (IPV plus online) courses).	1			76	21	3	0	0
		1		85	10	5		
			1	75	17	0	0	8
<i>Comments: The literature is replete with evidence of the growing demand for distance education. The annual market for distance learning is currently \$4.5 billion, and it is expected to grow to \$11 billion by 2005. The International Data Corporation (IDC) expects a 33% growth rate in distance education over the next several years. Others have asserted that up one-half of traditional campus programs will soon be available (alternatively or exclusively) online. Organizations from within and outside higher education are adapting to accommodate the growth in distance learning. For example, human resource professionals and hiring managers are becoming more accepting of online degree credentials. Further, more and more university systems are “spinning off” new “virtual” or “online” universities—for example, Penn State’s World Campus, Arizona Regents University, California Virtual Campus, and many others. Some reasons for this remarkable growth include efforts to expand access to more students, alleviate capacity constraints, capitalize on emerging market opportunities, and serve as a catalyst for institutional transformation. Another factor influencing growth may be competition with other institutions. Universities offering distance education are often perceived as modern and technologically competent, thus creating a competitive advantage. Distance students include both the traditional continuing-education students (i.e., adult learners) and growing numbers of younger, on-campus students. One estimate is that as many as half the students in online courses are from the traditional 18- to 25-year-old student cohort who normally take campus-based courses.⁵⁸</i>								
<i>Every evidence suggests that SOCC and the south coast region essentially are tracking with this trend line for DE growth. Indeed, remarkable progress has occurred. SOCC is in a position to offer leadership in DE not just for the south coast but also for neighboring community college districts.</i>								

Survey Question/Commentary	#			SA	MA	NO	MD	SD
	Ed	St	Sr					
<i>Distance Learning Trends (continued)</i>								
The Internet is becoming dominant among other DE media.	18			49	21	9	21	0
<i>Comments: Distance education has existed in some form or another since the 1800s. However, accompanying the growth in Internet usage, today's distance education focus has dramatically shifted toward network-based technologies (in general) and Internet-based delivery (more specifically). Today, the Internet is being used more than other continuing education delivery strategies, such as Interactive Television (ITV), correspondence, and live-remote location combinations. Not only is online learning more common now, but it increases 40% annually. One reason for the growth is the fact that digital media are transferable, storable, and widely accessible. The UCEA Distance Learning Community of Practice recently collected a baseline survey of distance enrollments by medium. The average enrollment in university-level independent study courses was 56% of course credits delivered in print, 25% online, and 19% granted by passing waiver exams.⁵⁹</i>								
<i>The PEW Internet & American Life Project reports that in January of 2005 13% of Internet users took a class online just for personal enjoyment or enrichment and 12% took a class online for credit toward a degree of some kind.⁶⁰</i>								

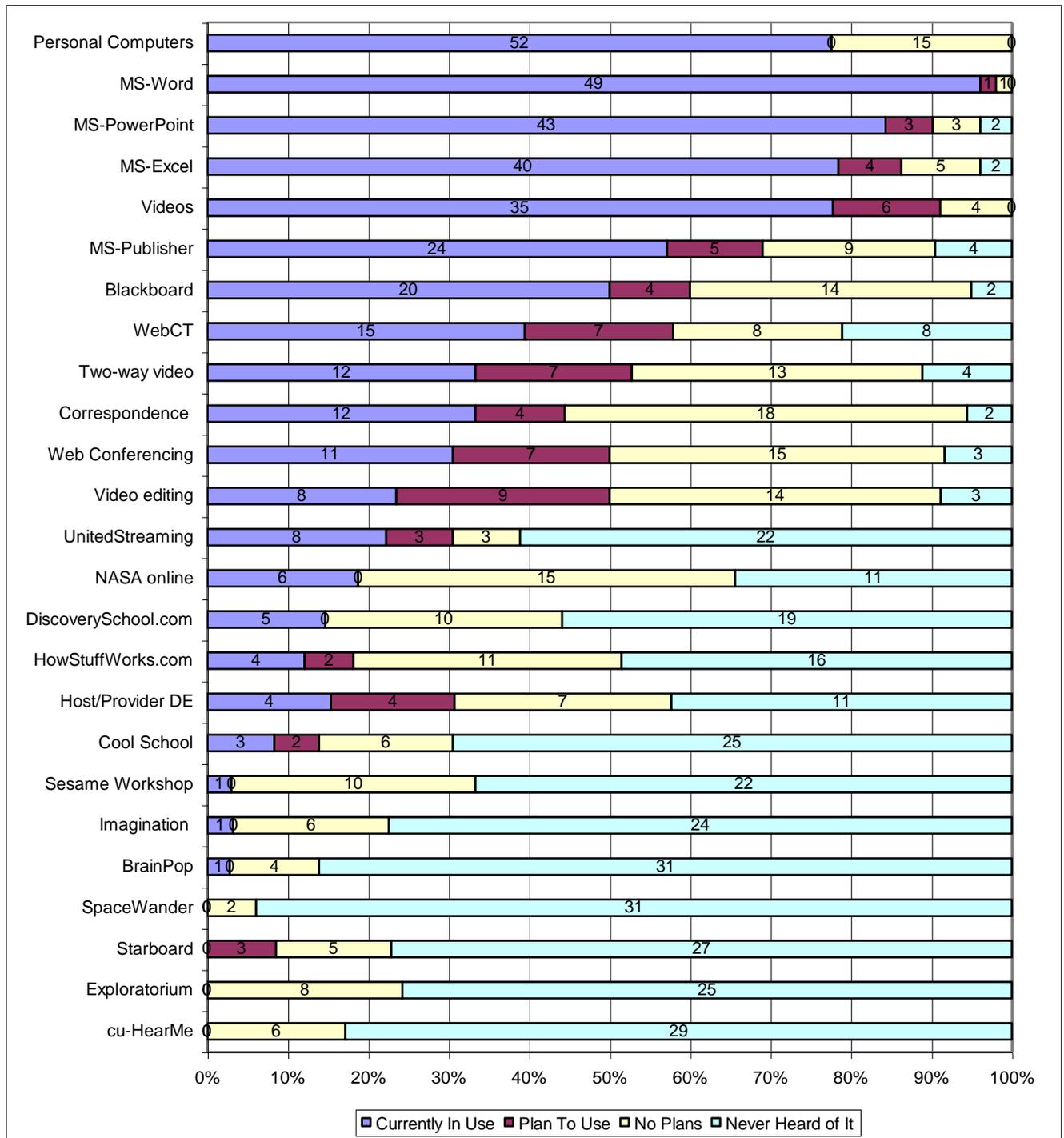
Survey Question/Commentary	#			SA	MA	NO	MD	SD
	Ed	St	Sr					
<i>Distance Learning Trends (continued)</i>								
The distinction between distance and local education is disappearing.	19			8	42	18	26	6
			16	25	50	25	0	0
<i>Comments: As universities digitally enhance more courses, the distinction between distance and local education is becoming blurred. Digitally enhanced courses provide students in traditional classrooms with more opportunities for independent study: even in a conventional 'face-to-face' system, students spend much of their time working on their own. It may always have been so, but the increase in resources for individual learning and especially those through the new technologies has provided students with far more powerful tools for independent learning. Clearly, distance students are not the only ones who benefit from "distance" courses. In fact, most online students live in the local vicinity of the institution offering their course. As a result of online courses, many institutions struggle to define Internet students. Traditional in-state, out-of-state, and international student distinctions are being eliminated, and the corresponding fee structures for the respective groups are breaking down. Currently, 74% of distance learning institutions do not charge out-of-state distance students out-of-state tuition, 91% do not charge international students more, and 71% do not charge more for distance courses than they do for on-campus courses.⁶¹</i>								
The need for effective course-management systems and Web services is growing.	20			64	30	3	3	0
<i>Comments: With all the growth in online education, student- and course-managing systems are becoming ever more crucial. Web services is a relatively new term used to describe new software standards that allow for integration of different applications as well as the secure exchange of data over the Internet. Web services ranked number seven on the EDUCAUSE strategic IT concerns list, number six on the list of issues becoming more significant, and number three on list of highest resource expenditures. EDUCAUSE predicted that at some point, vendors will offer a standard approach to data integration, interchange and interface. Instructional/course management systems were similarly ranked number nine on the IT issues most likely to become more significant in 2003-2004.⁶²</i>								

Survey Question/Commentary	#			SA	MA	NO	MD	SD
	Ed	St	Sr					
<i>Distance Learning Trends (continued)</i>								
Blended approaches, when available, are the most effective way to deliver DE (i.e., interactive video combined with online offerings).	24			23	49	26	2	0
		17		10	44	33	8	5
			17	50	42	8	0	0
<i>Classroom time is still valuable, but learning organizations must adapt with the times and implement new approaches. Today's most successful learning programs embrace advances in technology. The most optimal learning programs should consist of both classroom time and e-learning methods. By offering a variety of learning models, we acknowledge that people learn in different ways.</i> ⁶³								

Survey Question/Commentary	#			Taken	Developed	Delivered
	Ed	St	Sr			
<i>Distance Learning Trends (continued)</i>						
Online Distance Education	27			53	21	19
IPV	27			21	8	5
Blended	27			8	0	2
Online Distance Education		20		73		
IPV		20		5		
Blended		20		3		
Online Distance Education			19	58		
IPV			19	0		
Blended			19	8		

Percent = percent for each of total responses. As such these %'s will not add to 100%.
 IPV = two-way video Blended = online coursework combined with two-way video

What technology tools or resources are you using currently? (ED survey question #32)



Note: Percentages are based on the number of responses to each category.

Others?

- I've had little time or support to learn about DE tools.

- Painter IX, Camtasia
- SK on line
- SOOS
- TRC
- LCD projectors
- Much more than I have the desire to describe.
- I only use email for "notes" transmissions and do occasionally get Excel sent to check homework calculations.
- Overhead transparencies, handouts.
- A bunch of Macromedia software and Adobe software to develop content for Web delivery, eg, DreamWeaver, Flash, Captivate, PhotoShop.
- Have used some in the past currently not using - correspondence, Blackboard, Web Conferencing, WebCT.
- Streaming video/audio - zipped files.

Open-ended questions - Educators

What are the top three priorities you suggest for future development of DE on the south coast?

Educators Priority1:

(Collected in groupings and listed in alpha sequence by the grouping category)

Communications/Marketing

- Communicate - internally - externally.
- Connectivity.
- Market to people who may be "afraid to come to an actual campus.
- Marketing, public needs to be aware.
- Increase awareness of these types of programs.
- Catalog of course offerings distributed to local high school separate from semester catalogs.

Course Offerings and Costs

- Have classes with relevance to non-traditional students.
- Coordination of course offerings with needs of students.
- High school curriculums-course offerings for small districts.
- Increase offerings.
- Keep adding classes.
- Accessible to all students.
- Cut cost as much as possible.
- Availability.
- A variety of options in course selection for students.
- Hybrid classes - online, videoconferencing, face to face.
- Online classes.
- Offer teaching degrees.
- English
- Most all classes, outside of science and math.

- More accessible to high school students.
- More classes offered.
- I would like to see more IPV replacing on-line courses.
- IPV not needed.
- Face-to-face coursework if done well.
- Dual credit for high school students.

Partnerships

- Liaison w/ additional higher ed agencies.

Planning

- SOCC needs to develop a vision and mission statement for DE.
- Overall plan of where institution (SOCC) wants to go -- it seems rather hit-or-miss now.
- Encouragement/resources, support staff training - overall plan for DE (south coast).
- Survey student populations (high schools as well as SOCC) and business/community population.

Training/Support/Quality

- Training for student support of "Blackboard," Internet research, computer-to-computer IPV, teaching IPV is being a talking head.
- Faculty training.
- Staff training.
- Training on how to begin a DE class.
- Quality instructors.
- More training for instructors, A 2-3 hour class is not enough. Some schools like Linfield provide extensive training.
- Training for staff.
- Quality - both in terms of curriculum and instructor.
- Train the trainer.
- Further staff development on the validity of online coursework as an equivalent to standardization of hardware and software needs for the student.
- Have airtight system for evaluation.
- Develop and maintain a reputation for quality classes through DE.
- Recruit experts, working professionals to offer courses.

Technology/Internet Access

- Affordable bandwidth. Charter @ \$52.99 / month is a joke. Let's go ahead and promote the haves and have-nots.
- Access to broadband.
- Faster connections for district access.
- Technical Infrastructure.
- Making the computer programs more user-friendly (that's the complaint I hear most often).
- Infrastructure and support for infrastructure.
- Hardware and technology support.

Threats

- That DE courses and tenured instructors do not replace or compete with our campus programs and curricula.
- Insuring that DE does not threaten teacher's union eg high school students exiting traditional public school for online education.

Educators Priority 2:

(Collected in groupings and listed in alpha sequence by the grouping category)

Communications/Marketing

- Education of community on how to use DE.
- Communicate!!

Course Offerings and Costs

- Course selection.
- Greater breadth in on-line coursework.
- Have a wide choice of classes.
- More classes both at undergraduate level and graduate level.
- More online classes addressing workforce needs.
- Math
- Reasonable costs.
- Free access for all students.
- Money for purchase of software and hardware as well as support / tech for system.
- Offer master degrees.
- Provision of hardcopy text associated with every class taken as DE.
- Get funding or parents to buy software for teachers.
- Able to complete degrees (more of them) through DE.
- Affordable resources.
- Resources or text books with "good" online supports.
- Greater variety of quality courses.
- Quality of online offerings -- should be equivalent to on campus class experience.
- Offer all classes necessary for degree completion through DE.

Partnerships

- Collaboration between school district and community colleges.
- Equal access to all schools.
- Matching school schedules for IPV.
- More community involvement by letting the community be aware of the classes.

Planning

- SOCC needs to prioritize DE issues and begin to work on addressing the faculty concerns.
- If we are building more housing so the students can sit in their rooms instead of walking to Sitkum to take ANY class then we aren't doing well for ANYONE.
- School without walls concept for alternative and accelerated students.
- Surveys to see what kind of classes people would like.

- Summits between full-time and part-time faculty by department - parallel courses not in place now.
- Development of a 'plan for all.'

Technology/Internet Access

- Increase access.

Threats

- Settle faculty workload issues.
- Integrity - Insure the work and learning is owned by the student.
- Don't force instructors to teach. Some of us, me included, "had to."
- Adjusting workload for teachers.
- Full time faculty gets 1st choice and refusal. DE instructors that are not FT faculty get evaluated by their peers not by administration solely.

Training/Support/Quality

- On going training or "refresher" training for DE instructors.
- Learning/teaching resource center.
- Faculty training.
- Continue staff development for DE.
- More technical help
- Keep increasing support to the students.
- Students required to take training or pass competency (in online tech) test before taking an online class to ensure success.
- Support for faculty to develop top end courses.
- Support for staff monitoring/teaching.
- Concern for education developing skills that are not merely "checklist competencies."
- Maintain traditionally high standards.

Educators Priority 3:

(Collected in groupings and listed in alpha sequence by the grouping category)

Communications/Marketing

- Communicate!!

Course Offerings and Costs

- Affordability.
- More blended classes.
- Broadband/cable access TV.
- Maintain high quality of content and teacher/student interaction.
- Develop a clearinghouse of quality Internet courses.
- Writing
- High school and college credits.
- Central location developed on site.
- More flexibility.
- Local supplier of courses.

- Increase number/type of courses offered.

Partnerships

- Reassess the course work/existing and desirable for Oregon transfer.

Planning

- Strong, clear action plan including all stakeholders.
- Study the equivalence issue of DE and face-to-face instruction.
- Do research on course expectations (outcomes) via DE vs. in classroom.
- Acknowledgement or research on real time commitment required to deliver DE WELL!
- Think of students' futures instead of FTE, money and competition with other schools.
- Insure DE builds ways to maintain teacher-student relationship.

Technology/Internet Access

- SOCC needs to support the technology required to provide support services to DE and ALL students.
- Appropriate broadband width, hardware and software.
- Accessibility to equipment for low-income families.
- Reliable faster server delivery.

Threats

- Screening - only if you REQUIRE DE should it be preferred.
- Restrictions on campus students taking on-line courses.
- Dispel rumors - public school teachers (union issues).
- Work w/ all faculty - current onsite and current/potential online - to best-fit instructors and courses and to reduce tensions between instructors/departments. ;-)
- DE is not used as a way to out source traditionally target classes.

Training/Support/Quality/Finances

- Evaluation of quality DE courses.
- Focus on quality control vs. quantity.
- An effective "trouble shooting" system to keep DE working for the student when things go wrong. This would need to clearly identify the student responsibilities as well.
- Develop online training for teachers free of charge and award CEU or certification.
- Money for training of staff + FTE for staff to organize and supervise.
- Bigger incentive to teach DE.
- Finances.
- Financial leadership to put it together and progressive leadership.
- Adequate support is built into the course (tutoring, SI, etc.)
- Instructor training.
- Support for students when problems arise at times instructor is unavailable.
- Maintain high standards for instructor performance, interactions and standardize the student experience across all DE classes, i.e., assignments always posted to a particular area in classroom, similar grading process. This allows student more time for course content by cutting down on having to familiarize with these aspects of each class.

What are some additional DE course offerings you would suggest?

(Collected in groupings and listed in alpha sequence by the grouping category)

Business

- Accounting (x2)
- Business relations
- Business (various)
- Certifications, such as accounting, instructional assistants, etc.
- Real estate sales
- Income tax preparation

General comments

- None until we decide what are goals for DE. DE classes are seriously impacting our land classes. For example, summer school is 80% on line. Is this our goal?
- I hope you're also asking the kids and counselors.
- Unknown (x4)
- What courses are being offered?
- On line courses -- opened up completely.
- Upper level courses.
- Strong unique interest course.
- Classes toward Associates Degree
- HS senior transition skills/life skills for the student who will not go on to college (budgeting, loans, writing checks, home ownership, rent, avoid credit card debt, etc.).
- CAM relate coursework (PTE)

General Education

- Anything Gen Ed!
- Full range of general education, especially MATH and SCIENCES.

History

- History (x2)

Languages

- Foreign languages (x4)
- Sign language expansion to allow this to be offered and apply as a foreign language. All that is available here is the actual ASL or ESL -- no supporting (culture of, etc.)

Law and criminal justice

- Criminal justice courses, especially in corrections, law courses. (x2)

Literature, writing

- Shakespeare sequence
- Creative/imaginative writing
- Writing "seminars"
- Literature (x2)
- Remedial writing skill building courses.

- Higher level English, science, math and second language.

Opportunities for advanced high school students

- Classes for advanced high school students (2+2). Core and required subjects with the availability of the 2+2 concept (credit for college and high school). (x3)
- Advanced placement courses (x2)

Math

- Remedial math skill building courses.
- Advanced math
- Higher-level math.

Medical

- We will be working on nursing courses hopefully for delivery in 2006 fall.
- Anatomy and physiology - because of its importance to the medical field.
- Medical coding and billing

Native American Studies

- Native American studies

Psychology

- Psychology (x2)

Science

- Higher level science.
- IPV for lab classes.

Sociology

- Sociology

Teacher development/Advanced degrees

- More staff development for teachers.
- Classes for PDU's for public education teachers.
- Graduate level courses.

Technology

- More computer and web related classes.
- Technology related (Microsoft/Novell).
- Tech - programming, Web, operating systems.

The biggest opportunity for DE is...

(Collected in groupings and listed in alpha sequence by the grouping category)

Access and flexibility

- Greater accessibility to knowledge.
- Expanding services to students.

- Creating a latticework of opportunities for students no matter what their schedule or location.
- Expanded student opportunities.
- Accessibility to education.
- Accessing adult populations.
- Retraining those displaced/seeking better education.
- Flex in offering and completion of courses.
- Variety of class offerings
- Need for additional opportunities for students.
- Adults working full-time as well as seeking an education.
- High school and college level ELECTIVE options.
- Developing whole programs connecting students in virtual forum.
- Completing a degree within individual time constraints.
- Endless opportunity.
- ...at our resource link charter school and our comprehensive high school.
- Continued education.
- IPV is more like face to face.
- We have only scratched the surface. I believe we don't even know all the opportunities yet.
- Student Academics.
- Staff in-service.

Education at a distance

- Reaching out to more rural place bound students and students w/ scheduling issues and/or transportation issues.
- Rural communities.
- ...to help rural schools offer quality classes w/o adding staff.
- Outreach to smaller communities; providing alternative education opportunities in cities that do not have a college or university.
- Providing education to people in outlying areas and to people who cannot attend school at traditional times.
- Opening up new fields in small community - instructors can be far away.

New student populations

- We could recruit students from just anywhere in the world.
- Capitalize on the demand.
- Reaching students who we might not have because of barrier issues.
- Reaching new target population.
- Gaining more students.
- Out reach to non-traditional students
- Reach student who would not be able to take traditional classes.
- Increase enrollment and offerings of traditionally low enrollment classes.
- Alternative and accelerated students.
- Partnership with business/industry to offer trainings.

Other responses to this question

- The ultimate demise of the thinking world. A poorly educated populace allows for the rich to get richer.

- Student participation is mandatory!! Participation is not an option!!

Use of technologies

- Get courses on line that are not all didactic but include more video streaming.
- Improving ease of use.

The biggest barrier impeding DE is...

(Collected in groupings and listed in alpha sequence by the grouping category)

Access

- Not accessible to students with disabilities

Costs and financing

- Cost of technology and staff to run a proper program.
- Teaching staff, funding, and marketing.
- Money for resources and development.
- \$ (x4)
- Unions and finance.
- For some availability or possibly marketing.
- Paying for classes.
- Financial and administrative.
- Money for staffing, tech support and physical location.
- Non-local residents are charged more for tuition fees than local residents.
- Finances. Availability for all students.
- Cost, equipment, quality courses and support, bandwidth, scheduling.

Faculty

- Finding skilled part-time instructors to either teach online courses or free up full-time instructor to develop and teach DE courses.
- Faculty and students being afraid of change.
- Probably teaching the instructors how to adequately use the technology & develop new education skills.
- Faculty buy in.
- Faculty issues and credibility.
- Quality instructors.
- Too much work, too little pay
- Communication issues: parochial faculty - people + administrivia - NOT the technology.
- Staffing - providing quality faculty and adequate support staff.
- People's inexperience with online courses and faculty's learning curve and philosophical resistance.
- Lack of clear communication between on-site and distance faculty.
- School (faculty/administration) have not developed policies about DE.

Marketing/Public Opinion

- Inconsistent student awareness. Not enough info "out there" about course offerings and opportunities for HS students. (Also, some students lack computer skill!)
- Public awareness.

- Opinions of public that online learning isn't as good, of faculty that it is too hard to learn or ineffective of institution that it's not necessary or not worth the cost.

Other responses to this question

- The threat of someone noticing the Emperor has no clothes.
- Threat to status Quo.
- The lack of live face-to-face interaction (it's a necessary evil) (the lack of contact - evil, not DE - not evil ;-)).
- Threat to relational group experience.
- Having the discipline to do the work and get online each day.
- Variety of quality courses.

Partnerships

- Cooperation/districts.

Quality

- Retaining quality, while expanding options.

Technology/Access/Support

- Availability of computers.
- Technology access; training for those desiring to develop such courses.
- Electronic illiteracy.
- Bandwidth for video streaming.
- Finance.
- On-line w/ no technical assistance discourages students from taking more.
- Moving too fast. Computer labs for students being closed on weekends.
- Equipment failures and breakdown in communications.
- No investment in DE technology
- Accessibility/Availability.
- The technology of making it all work and easy to use.

Time

- Time to develop courseware.
- Computer availability.
- Time and staff.
- Course development.

What does your school or college need to get to the future for DE?

(Collected in groupings and listed in alpha sequence by the grouping category)

Costs and financing

- Appropriate online courses for average H.S. students.
- Reduced prices for high school students (I know SOCC already gives 10% but more would be good under 2+2!).
- FUNDING!
- Money - pay the faculty more (x2)

- \$ (x 6)
- More time.
- Resources to make it possible.

Course Offerings

- More options.
- More online/blended courses for students (increasing their options) and staff development.
- Recruit professionals to offer more courses and non traditional courses, eg, a California community college has a media art department that offers certificates and AA degrees in designing video games.
- More classes offered online to complete a degree.

Faculty

- Union bargaining.
- Investment in faculty
- Staffing.

Marketing/Public Opinion

- Time to sell the opportunity.
- Market to public.
- An effort to market the classes to a wider variety of potential students.

Partnerships

- Admin, faculty, staff and students work together to create a cohesive vision and guidelines for DE across all disciplines.

Planning

- We need to set goals and develop mission statements for DE. We need to support blended classes.
- Coordination.
- Calendar to fit all districts.
- Coordination, equipment, steps to work with traditional educators.

Other responses to this question

- A swift kick in the butt.
- Don't understand this question.
- We have tools in place now for DE.
- No idea.
- Question reads funny -- choose delivery method for online courses that will stick w/ or several years - this will come as SOCC gets more familiar w/ the options and tries a few out.
- We ARE in the future of DE in the University Center.
- Elementary school.
- Institutional support.

Quality/Monitoring

- May need to develop different testing/assessment methods.

- Faculty and administration reports.

Technology/support

- Continued tech support
- Continuous efforts in place and increase technical assistance.
- Equipment set up, more computer upgrades and more computers.
- More computer access and supervision.
- Telecommunications and electronic infrastructure.
- Hardware, tech support
- Equipment and infrastructure.
- Updated computer lab.
- Our own WebCT license,
- Better software.
- New server, up to date equipment, investment in technology.
- More up to date computers.
- Training, support personnel, bandwidth.
- More training for instructors

Training

- Training in use of programs facilitating such work.
- Train instructors.
- In-service

What do you need to move into the future with DE?

(Collected in groupings and listed in alpha sequence by the grouping category)

Course offerings

- As a high school technology teacher with good access to bandwidth and computers, I would simply need access to courses for my students.
- Integrating more online activities.
- Courses of interest.

Funding/Workload

- Commitment and \$.
- FTE
- More incentive.
- I don't get paid enough as instructor to make a living, so my main work is as a [deleted]. I teach because I love to and am committed to the profession and students. But by the time I put in my efforts, time into classes, students, hand grading tests and test analysis for each student, I get paid about minimum wage! As a single mom with no outside financial support, teaching has not been very good return for my time invested in the students. I have to gain main income elsewhere and those work commitments don't cease when I teach the [deleted] program every other January to June, during even-numbered years. Maybe grant money to develop online courses if it ends up taking a lot of my time. There is a lot of detail information and work concepts that are not in print I impart to students through lecture and discussion.

- Finances
- Better compensation.
- Resources to make it possible.
- Funding
- \$
- Dollars to take more staff development courses.
- Adjusted workload.

Planning

- Coordination

Other responses

- I'd like to see the Oregon Transfer Model for requirements? (I'm not sure what it is called.)
- I need to take an online class at SOCC
- No idea.
- As an instructor I'm not sure I would ever want to teach a DE class. It seems so impersonal.
- Unknown.
- I'm pretty set. ;-)
- The will to do it.

Time

- Time to sell the opportunity.
- The realization that teaching often involves more than telling. That difficult concepts, yes there are some, require more than an exchange of email messages to conquer.
- Time to develop classes
- Time (x6)
- I have a full workload teaching the traditional classes. Hiring a part-time instructor would allow me to develop and teach a DE class.

Training, equipment and technical support

- Training (x7)
- Equipment
- Continue to take classes and workshops to educate myself and learn and buy software.
- Live time writing technology (2 way) to provide academic support.
- Tech assist.
- Support
- Help making a Web page.
- A computer.
- Hardware, tech support, in-service.
- More up to date computers.
- Equipment and infrastructure.
- Staff development, computers!, tools.
- Someone to call me.
- I don't know besides a technology.
- Software and some time to use it.

What online services do you need to support your DE efforts?

(Collected in groupings and listed in alpha sequence by the grouping category)

Compensation

- A well thought out support \$ motivating plan.

Course offerings

- Video streaming (clear and fast); voice activation instruction,.
- Course descriptions
- Close communications w/ instructors
- Something less expensive than \$300 per half credit.
- Web based courses that will enable students to pursue areas, which are otherwise unavailable.

Internet access

- Fast Internet connections.
- Bandwidth, interactive systems.

Training, equipment and support

- Perhaps training on WebCT.
- Updates in equipment
- Online tutoring
- Tech support
- A computer lab with support staff to help me get started.
- Training and equipment
- I think all the online services I need are already available.
- Hardware, tech support, in-service. Free access.
- Online help, support desk.
- Online training
- Tutoring
- Discounted software
- Tech support for students - already in place @ SOCC.
- Technical services for students - being addressed.
- Web page for our programs - time to develop it
- Karen S. is an excellent source/resource (WebCT).
- I work out of town a lot, away from my home -- how would I have access to my online students? I do not have a laptop: would you provide?
- If it were Web-based, not a big problem.

Other responses

- All of them.
- Don't know (x3)
- None.
- Library, COUNSELING, book sales, etc. ie, student services.

What online services do students need to support their DE efforts?

(Collected in groupings and listed in alpha sequence by the grouping category)

Course offerings/services

- Classes offered economically.
- Positive/close communications w/ instructors
- Library, COUNSELING, book sales, etc. ie, student services.
- Financial aid & admission & F/A help online 24/7.
- Advising, financial aid, bookstore, help desk, all services that on-site students receive.
- All services on campus could be available online such as book ordered, tuition payments, applications, counseling / advising.

Internet access

- Broadband at the home.
- Internet access for those who do not ~ paid evening school library staff would help to provide Internet access.
- Access, bandwidth, interactive systems, staff and technical support.
- More access.
- Do not use dial-up.

Other responses

- Encouragement.
- All of them.
- None.
- Unknown.
- Things are happening now -- keep this on going. Karen S. just helped me with "Resources" -- Great input!!

Training, equipment and support

- Training on how to successfully take an on line course.
- Online tutoring.
- Tech support, trouble shooting.
- Basic tech issues.
- Better software.
- Staff supervision. Staff Training.
- Affordable courses and access.
- Tech support.
- Instructions that are clear.
- P A computer lab with support staff to help them get started.
- Places to do DE where computers are able to handle load ie, video, etc.
- Tech support
- They need better computers and basic software. Some students don't even have Microsoft Word on their computers.
- Working computers.
- How to take an online course and some one to help monitor their progress.
- Navigation guide accessible via email.
- Tutoring, easy access to on-line classes - not all students have, computer literate.

- Those of us who provide services to students need time and support or additional staff to develop on-line services - tutoring, counseling, advising, career, etc.

Additional comments:

- I am very supportive of DE. However SOCC needs to determine its goals. We have many issues that need to be addressed. The faculty senate is beginning these discussions w/ Karen in an attempt to provide leadership. I can tell you more about this if you are interested.
- Thanks!! ;-)
- We have found that if we don't have a staff member assigned to the student as a "nagger," individual students for the most part struggle with course completion.
- ISP's need to get a handle on the spyware issue and what comes through their firewalls. You shouldn't have to be a PC tech to be able to use your home computer.
- These are the people that most concern me. When a company is created (for the purpose of making a profit) that provides its customers with "intelligent communications services and supports that inspires learning skill levels..." the motivation to make more money will soon exceed the motivation for quality.
- I would like to see if I can eventually combine some evening classes w/ IPV access from remote locations like Brookings or Gold Beach (more central).
- I'm interested as both an administrator and my masters is in educational technology. The basic framework exists for this concept if the Internet is used. If we try to create a new system we will be going backwards. www.umuc.edu/ide/mod/menu.html has several suggestions given the various models available. Good luck with your efforts! As an alternative teacher I see a great need, but also as our technology charter school continues to run, I see how this concept could work well.
- I am a new teacher and do not have any experience with distance education. If I did I would probably have more to say what could be changed or improved.
- I have taught IPV [deleted]-I classes for nearly two years, the first of which was a disaster. When I made the grades this year based ONLY on class participation, ie. Showing up regularly with completed homework, the performance and retention improved considerably.
- Recently I have the opportunity to participate in online workshops offered by CVC - California Virtual College - an online education network in California. They teach college teachers how to use technology to develop Web content and Web accessibility. They also offer a certificate if the teachers could complete a specified number of classes. If they pay a fee, they could earn CEU's or in-service credits for their efforts. All the classes are free. They also distribute free CD-ROM's to teachers in California. To be able to do well in DE, teachers need continuous on-the-job training. CVC offers FREE, ONLINE classes, which

awards CREDITS. I have not found anything to teachers in California like this in Oregon. If Oregon could not come up with something like this, maybe we can join them.

- You broke the cardinal rule of surveys - don't make them so long and involved that it discourages completion.
- No other comments.
- I'm glad you're doing this survey! :)
- Haven't taken or given an online course so I really don't have much to say.

Open-ended questions - Students

What are the top three priorities you suggest for future development of DE on the south coast?

Student Priority 1:

(Collected in groupings and listed in alpha sequence by the grouping category)

Cost

- Make it more cost effective. It should be cheaper to take class online than to have to attend a class on campus. You are utilizing your own space & not someone else's.

Course offerings

- More classes (x6).
- More teacher responses to class work / assignments before they are required to be turned in.
- Too hard to take tests at the college, that's the whole purpose of taking online is to not have to worry about finding time to go to the college.
- Combine all class from other colleges.
- Make sure that there is discussion going on in each class.
- Make compatible to on campus costs.
- Not continuous DE but some interaction with a teacher, like once a month or so to talk and ask questions.
- More options from more schools integrated with SOCC.
- Make sure instructor is very organized.
- Easier more understandable professors wants out of DE.
- Contact with teacher.
- Interaction. More intervention between student & teacher.
- Link with other colleges through SOCC.
- Too hard to take tests at the college, that's the whole purpose of taking online is to not have to worry about finding time to go to the college.

Other responses

- I've been very satisfied with my experiences.
- So you can take classes in between work and family

Technology/Access

- Simplify use of software programs where possible. Not everyone has the latest version or the newest equipment.
- Better upload & download time.
- Shorter upload time.
- Access to the technology.
- WiFi.
- Limit the time for chat mode. Not that it is ineffective, just difficult for those w/ time challenges to schedule.
- More access ways.
- Better systems for the learning.

Student Priority 2:

(Collected in groupings and listed in alpha sequence by the grouping category)

Cost

- Free of charge to all students.

Course offerings

- Bachelor degree classes.
- Ability to advance toward my degree using online-limited classes.
- Broader selection of classes.
- Greater number of course offerings.
- Offer DE classes so that students do not have to come on campus for testing. Class should be totally on-line.
- IPV w/ DE @ SOCC.

Other responses

- Closer relation to teacher.
- Make interaction with other students a priority.
- Less personal information to the instructor. I'm here to take a class & not talk about me.

Publicity/Marketing

- More advertisement for higher classes offered.

Technology/Access/Support

- Provide face-to-face tutor support on campus.
- Specific guidelines / instructions for people new to DE.
- Compression files.
- Ease of use.
- Change the chat rooms so that you don't have to shut off the pop up blocker to use it.

Student Priority 3:

(Collected in groupings and listed in alpha sequence by the grouping category)

Course offerings

- Technical education (health sciences in particular).

- Needs to be more individualize, working in groups for online classes is close to impossible.
- More selection of classes.
- Availability.
- Offer as many classes as possible.
- More classes offered.
- Greater course flexibility.
- Make class requirements and info on student teacher communication clearer.

Other responses

- Use local time for assignment deadlines. WebCT is set at Eastern time and some instructors don't bother to push the time ahead 3 hours. It's nice to have a midnight deadline instead of 9 PM.

What are some additional DE course offerings you would suggest?

(Collected in groupings and listed in alpha sequence by the grouping category)

Course offerings

- Licensed Practical Nurse Certificate programs
- Not sure
- Upper level classes ie, 300 or 400 series.
- Health sciences, paramedic, online nursing.
- PE 231, PSY 203, Business 105
- Broader choice of business classes.
- More biology, chemistry and math classes.
- WR 121, ENG 104
- Lower level business courses, philosophy courses, human development courses.
- Building, such as architecture, construction, drafting.
- I have not yet had a class not offered.
- How to deal w/ the real world, booksmarts & street smarts.
- Online IPV yoga or other at home activities.
- How to deal with the real world & still have book smarts.
- Basic college requirement classes.
- Philosophy, Math, Genetics.
- Sciences.
- Any foreign language, higher math classes, probably any art class.
- Keyboarding.

Support

- More help options that route either directly to the school, ie, IT dept or DE director.

What are the DE courses you have taken over the past 2 years?

(Listed in alpha sequence)

- Accounting I, I & I
- Accounting
- All psych sequences

- Are you kidding? I can't remember them all. At least three different systems. Many classes in each.
- BA 101 (3)
- BA 277
- BA 285 (4)
- BA 288
- Career
- Chemistry 110 through SOCC.
- Children with special needs
- CIS 131
- CS 101 (2)
- CS 131.
- CS 1781
- Development Psychology through Evertt Comm. College in WA.
- ECE 102
- ED 25B
- Ethics
- Family relations / Multicultural ED
- HDFS 222
- HDFS 247
- Health and writing
- HS 154
- HUM 206
- Human relations
- Human relations in organizations.
- Humanities & health
- Interpersonal Communications through Skagit Valley Comm. College.
- Medical Terminology 1 (4)
- Medical Terminology 2
- Middle childhood
- MTH 70 (2)
- MTH 94
- Multicultural education
- Nutrition 225
- Observation in children
- Philosophy
- PS 205
- PSY 201
- Sociology
- Speech 218.
- Started CIS 131
- Study skills
- Word processing
- Writing 214
- Writing
- Writing 121 (3)

- Writing 122 (4)
- Writing 123 (2)
- Writing, psych

The biggest opportunity for DE is...

(Collected in groupings and listed in alpha sequence by the grouping category)

Access to education/Time & location flexibility

- For those who have to work to have the ability to further their education without having to cut work hours by much.
- To allow students who work and or do not have the ability to commute to the college to attend class.
- Full time workers doing part time school.
- Allowing for students with busy schedules to take more credits.
- To be multitasked and get more school work done in smaller amounts of time.
- Save on gas, no time restraint.
- Access from any location at any time that is convenient for the student.
- Having and getting the education from a distance.
- Able to do it on you own time.
- Wide selection of learning for students.
- It opens up the opportunity for students like myself, that don't have time to be in a classroom, to get a degree.
- Accessibility.
- Freedom.
- Not having to drive to Coos Bay.
- Accessibility.
- Flexibility.
- Being able to take classes even if not offered on campus.
- Connecting with more students in smaller towns.
- Providing access for those without transportation.
- More people can further their Ed because they can do it from home.
- Being able to cater to more students with a diverse range of needs.
- Flexibility --> people w/ families & work - able to do a class that otherwise wouldn't fit into a schedule.
- The opportunity for students to get training that they probably couldn't get otherwise.

Other responses

- Technological certification.
- The link with another 4-year college (great).

The biggest barrier impeding DE is...

(Collected in groupings and listed in alpha sequence by the grouping category)

Cost/Finances

- Hidden costs, I mean what a racket. Ten students @ \$300+. All you need is someone to evaluate and a cheap server. Wow! Wish I were part of that.
- Financing

- Cost of DSL hook-up.
- Cost.

Course offerings

- Lack of needed classes.
- The need for training courses to ease the anxiety of learning to do online courses.
- Those who decide to offer or not to offer DE courses not thinking outside the box, hence not offering enough DE classes.

Other responses

- Procrastination.
- Discipline.
- There is no one on one action at all and some people need that to learn better.

Quality

- Instructors who do not stay up on communication with students.
- Disattachment from the instructor.
- No personal interaction.
- No human interaction.
- Not having classroom tools such as a teacher.
- Teachers need to make sure they have time to teach an online class. Online students need attention, too.

Technology/Access/Support

- Your computer connection - modem, cable modem, DSL. Etc.
- People unfamiliar with computers and scared of the technology -- > thinking it will be too hard for them.
- Technology
- Accessibility.
- Having to rely on Internet & electricity.
- Dial Up.
- Slowness of computer system at home. I also don't get to see & hear the instructor.
- Slow connection speeds - no broadband.
- Convenient technology access.
- WebCT cutting you off during a test. Not knowing if others are typing during a chat.
- Computer access - if someone needs to use one outside of home & assignment availability window is only a few days, it can be a hardship - (or if you have computer problems)

What does your school or college need to get to the future for DE?

(Collected in groupings and listed in alpha sequence by the grouping category)

Course offerings

- More classes that are relevant.
- Tutor availability of skills not able to obtain individually -- like computer courses.
- More classes. (3)

Other responses

- SOCC has DE.
- Not sure.
- I only marginally understand this question.
- I don't understand this question. Sorry!
- No idea.

Technology/Access/Support

- Better WebCT.
- Better chat rooms for discussion.
- Computers.

What do you need to move into the future with DE?

(Collected in groupings and listed in alpha sequence by the grouping category)

Cost/Finances

- Just time & money ;-) and an instructor who gives clear expectations.
- \$

Course offerings

- Online bachelor programs.

Other responses

- Not sure.
- Again a no-brainer. My ancient (by today's standards) computer will do anything. Now try a new game...
- Keep taking courses.
- No comments.

Quality

- Better communication from my instructor via e-mail when I have a question.

Technology/Access/Support

- Computers.
- Better access, less problems.
- DSL.
- A fast Internet connection, which means more space on my hard drive.
- Broadband connections.
- WiFi and streaming video (Web).

What online services do students need to support their DE efforts?

(Collected in groupings and listed in alpha sequence by the grouping category)

Other responses

- Can't think of anything significant.
- Continue to be involved.

- No comments.

Technology/Access/Support

- Internet
- I would like to see online courses supported with someone on campus who is in contact with the course instructor and can provide face-to-face help for the students. Much like the Writing Center and Resource Center does at SOCC. It would be better if online courses had direct contact with them to provide more specific instruction or help.
- Better WebCT framework.
- Their own computer and access to a library.
- Training to be more efficient in their online classes.
- Messaging tools, such as MSN or AOL.
- DSL
- Tell Verizon they need DSL in Port Orford.
- The ability to experience a mock DE class so they have an opportunity to go through the process before they sign up for a class. If this had been available to me it would have made my first term on-line much easier. I was having to learn WebCT at the same time learning MTH 70 & how the instructor did things.
- WiFi.
- The Web for research and technical support if needed.

Additional comments:

- The courses I have taken online were great experiences. The instructor kept everyone up to date on what was expected, results of tests & made sure questions were answered promptly. There were no surprises. Lecture notes were provided & you knew what to expect on tests - guidelines were given. The instructor was Shirely Farmer. She was excellent.

I started CIS 131 with Karen Sadler. Communication via the classroom or email was a bit slow. General assignments were clear & understandable. There was an additional 116 pg. Book you had to download and was informed that it was informational. It was not stated that you MUST read it in addition to the textbook that was required. Considering that it was call basic concepts to computers, those of us with prior computer background (which was already a prerequisite) weren't sure why it was needed. I found out that we would be tested over it. Isn't that why you took the pre-req? The first test - NO lecture notes were ever given - was over material NOT covered in the text. I spoke with the instructor (after failing the test). She said not to worry as I had 100% in the class other than the test. But, I do worry. I had studied, even studied from the text online quizzes. Consequentially, I was advised by my advisor to drop the class, which I did. Unfortunately, I did not get my money back from the class. I feel it was not my fault in not knowing how this class would go until after 3 wks into it & now have no portion of money back. This leaves me with the impression that not all online classes are up to par. I have informed as many people as I can to NOT take the CIS 131 online. Do it on campus & don't waste your money. Of course failing the test brought my grade down.

- Overall this is a poor way to achieve real education. Since it is my only way to get it I have to be satisfied. Classroom environment used to give you points for mere attendance. I have yet to get rewarded for how many times I logon to the class. Maybe a full talking head, use a

webcam and logon at specific times may be a distant second to being there. But until full duplex sound in such an environment arrives, computer learning lacks the time immersion in a real, and challenging, environment.

- All my experiences with online classes have been good ones. I think they provide great opportunities for people motivated enough to work on their own.
- I only have two complaints:
 1. Teachers need to make it a requirement that students interact with each other.
 2. Teachers need to make sure they have extra time in their day to sit down and answer our questions. The worst part about an online class is when you need help and you don't hear from your instructor for a week. Then when you turn in your assignment you get marked down because you did not receive any help. Other than that I prefer online classes and it is usually the only way working and full time moms can get an education. Keep up the good work!
- DE classes are awesome to fit around your schedule. I take these classes every term & will continue my education with these classes even though I will be hired & teaching.
- I would like to see instructors use WebCT in the same sort of fashion. I would like to be able to go back on test & answer another question. In some classes once you answered a question on a test, that was it. That isn't how a campus class is so why have it that way on-line?
- This has been a very helpful resource for me. I am finishing up my first year after being out of school for 25 years. I needed a little more flexibility than some and DE classes helped me be able to carry a full load & take classes I needed but couldn't fit into my schedule.
- Most of the DE classes I've taken the teacher just gave an outline. The date assignments were due and that's it. It was more or less a self-taught class. I was only paying for credit. Nothing else was provided. That the student couldn't acquire without the class.
- No comments thank you. I have not been able to do online survey on WebCT Homepage - the site has not been accessible.

Open-ended questions – Regional Stakeholders

What are the top three priorities you suggest for future development of DE on the south coast?

Stakeholder Priority 1:

(Collected in groupings and listed in alpha sequence by the grouping category)

Cost/Finances

- Easier access to FAFSA (Free Application for Federal Student Aid), too much red tape.

Course offerings

- Continue to offer core general education.

- DE courses could be used for remedial education, to get students up to speed for college coursework.
- Continued improvement of ease of use for students.

Quality

- Training of administrators, educators & trainers.

Technology/Access/Support

- Reliable, user-friendly connectivity.
- Working with other government entities to make sure the bandwidth is sufficient.
- Development of a reliable delivery system.

Stakeholder Priority 2:

(Collected in groupings and listed in alpha sequence by the grouping category)

Cost/Finances

- Well planned for DE course implementation, including INSTRUCTOR DE development.
- More courses available. More flexibility of times it is offered.

Course offerings

- Updated syllabuses.
- DE courses should supplement, not replace, on-site faculty. Successful DE course completion requires a level of discipline and self-motivation, along with study skills that many south coast students do not have.
- Tailor offerings to make them compatible with wireless Internet services.
- Comprehensive curriculum development that is student centered and student friendly.

Partnerships

- Partner with other universities to have WEEKEND courses @ 300 - 400 level.
- Partnerships / collaboration.

Stakeholder Priority 3:

(Collected in groupings and listed in alpha sequence by the grouping category)

Cost/Finances

- Funding

Course offerings

- Use blended format.
- Offer more, smaller classes.
- Comprehensive training for faculty and end users.
- Staff training (better access to).

Partnerships

- Summer programs with other universities.

Technology/Access/Support

- A very good help line.
- More places it could be offered.
- Technology is the new literacy. DE courses could offer computer, wp and interfacing skills. Unlike many areas, we in Coos County do NOT have a computer in every home. If the world is now an international marketplace, our students need technology and computer skills to compete.

What are some additional DE course offerings you would suggest?

- Basic course work: math, writing, etc.
- Health related: CAN / RN / coding / business office.
- College level courses / credit for HS students.
- Medical field.
- Cultural geography
- Philosophy - ethics & critical thinking
- Literature - American & English
- Enterprise development
- Small business management
- Short-term trainings.
- Study skills, beginning computer skills, art history, music, language, anthropology.
- A lot of the traditional curriculum can be offered as DE - math, English, physics, chemistry. It might be good to break these up into units and offer them as standalone units or as part of a larger class, self paced.
- Technology - software use, hardware applications
- Core courses - math, writing, reading

The biggest opportunity for DE is...

(Collected in groupings and listed in alpha sequence by the grouping category)

Access to education/Time & location flexibility

- Developing at least some of the courses into rural community & homes. It may be impossible to catch an hour or two while their kids are sleeping.
- People working to support a family can still receive the education they need to advance a career.
- All areas - rural & city have the same opportunity.
- Transportation
- Smaller, more entrepreneurial offerings - example: a faculty member creates a "canned" video lecture and class exercises on a particular topic ie in calculus, complete with a competence test. This can be offered stand alone or as part of a larger class. The faculty member could be compensated by royalties based on the number of people who take the unit (with another royalty based on the number of people who passed the competence test).
- Ability to work fulltime & continue your education.
- Reaching those in remote areas.
- Reaching home-schooled students who are use to independent studies.

Course offerings

- Is to create a bridge between what students can gain in faculty-supported coursework and the other bits of knowledge they need in a wider world.

Quality

- Higher student retention and/or DEGREE COMPLETION.

Technology/Access/Support

- Technology (ease of access)

The biggest barrier impeding DE is...

(Collected in groupings and listed in alpha sequence by the grouping category)

Access to education/Time & location flexibility

- Access for everyone.

Cost/Finances

- Funding
- Money and a lack of clear vision of the mission of SWOCC.
- \$\$ - delivery framework - access revenues

Course offerings

- Classes available.

Other responses

- Academic dishonesty - verification of who is taking exams.
- Motivating the student.
- Faculty willingness to participate coupled with faculty compensation.

Quality

- Peer to peer involvement / interaction.
- Faculty becoming more proficient in developing and growing with technology.

Technology/Access/Support

- Limited fiber on the south coast.

Additional comments:

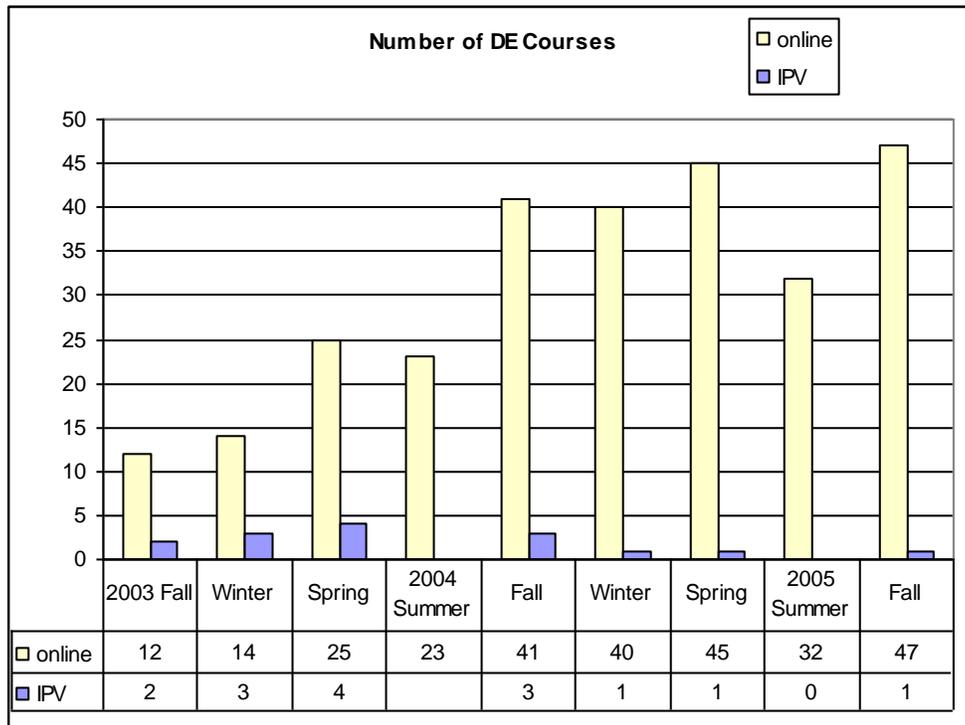
- I do not know what is offered to students through your school. I & my staff have used 2-way video for conference meetings & we appreciate having the service available.
- DE can reach into Agness, Pistol River, Point Orford, etc. to augment the local campus in Gold Beach or Brookings.
- Hi, John!
- I feel DE is a great opportunity. I also feel it is pretty new to this area. I think with more training DE will get updated. The simpler things are to use the more students will access

them.

- As a long-time county librarian and former employee of SWOCC, I see several basic issues. One is that many Coos County students come to college unprepared for a college environment. However much we might [like] things to be otherwise, this county has a culture of poverty and lack of respect for education that pervades everything. At the same time, a college degree, not certification, is the only way to a better life. I see the mission of the college as preparing our students, once having left, will probably not come back. This leads to my other basic issues: jobs. We need a diversified base of employment base in Coos County. This is a larger issue than is addressed in this survey, but, like poverty, pervades everything. DE courses can open new areas of knowledge to our students. What an opportunity!

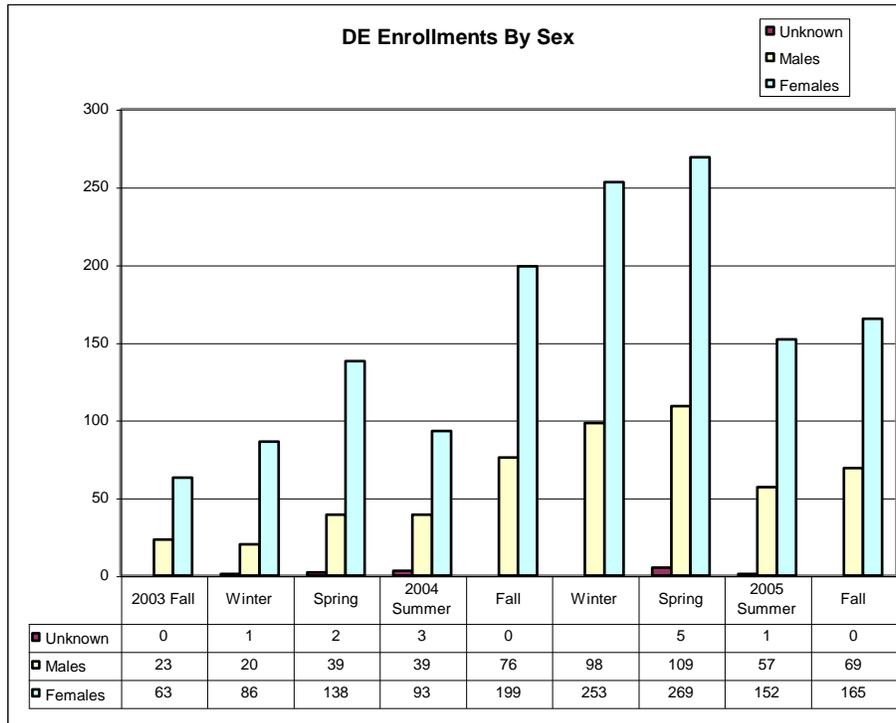
SOCC Number of DE Course Offerings

The number of DE course offering at SOCC has grown significantly since its first series of offerings. The following chart clearly highlights the rapid growth underway. The most surprising revelation in the data is the consistently low and falling use of IPV. This seems to be a trend throughout many regions of Oregon. Some observers point out that while IPV quality has improved, it remains a time-bound delivery mode. Non-traditional learners seek ways to alleviate both the time and place bound factors.



Trends SOCC DE Enrollments

Female DE enrollments consistently track at a better than 2 to 1 ratio of females to males. Data extracted from the SOCC files results in the following chart, clearly showing the usage of DE by females. This is a trend noted across the U.S.



Interviews

Over the period of April through August 2005 interviews were conducted with faculty, administrators, students, and stakeholders throughout the south coast region and elsewhere. We did not get to interview everyone that we sought out. Vacations, scheduling, and limits of time were the contributing factors.

As with the surveys we present the aggregated findings without identifying any one source. As such the information is summarized into several common themes or groupings that emerged. In some instances, these are direct quotes. Most comments, however, are paraphrased. All opinions reported in this section came solely from the persons interviewed and are reported as they were received. Interviews averaged between 1 to 2 hours for an overall estimated time of 80+ hours.

DE programs/curriculum

More!! This point was emphatically driven home in nearly every interview. Overall the current curriculum seems well received, they just want more. In particular, they want more online DE. IPV is not viewed as being as flexible a time-fit as the online delivery of DE.

Educators wished that there were more courses available to help them advance their degrees. A number were not aware of the OUS offerings. All complained of costs they incur when using DE from any source.

A few are interested in seeing how the SB 300 measure that just passed might help their kids. Others are interested in the implications of the Virtual School measure that also just passed.

Several ideas for additional programs were provided, including: hotel and restaurant management, additional maritime offerings (all ships now have Internet access and many encourage their employees to take online courses to advance in pay grade and position), courses in support of allied healthcare employment, and core courses for the trades.

Healthcare course offerings were deemed critical. IPV is considered critical to advance rural students through the program. Rural locations for the use of simulation manikins are also very important. The need to explore and expand other online offerings in support of other aspects of healthcare careers is also seen as critical toward meeting future needs of the region.

Faculty preparation, commitment and support

The request to help faculty prepare and deliver online or IPV courses surfaced repeatedly. Suggestions included having a certification program that would address more than just the technical aspects of course preparation and delivery. There's an "uncomfortableness" with taking on a DE course or at least a perception of such.

The general view expressed was that it's the early adopters who have jumped in and ran with this opportunity. Learning to use the tools is not the issue. It's how to move into these new delivery mechanisms and the level of support once engaged that is of concern.

There was some concern of faculty being "forced" to do a DE course without provision of time for preparation, adequate reimbursement for taking on an additional load or for not being adequately supported.

Apparently there's a shared view that there are those who still simply do not approve of using any technologies in the classroom. However, those are seen to be among a dwindling minority.

Concern for having support when they need it also was discussed. The support needs identified were for technical use, course delivery and administration. They also expressed interest in some level of peer review.

The need to allocate reasonable time and support for faculty to move more rapidly towards adoption and to deliver quality in their programs was stated repeatedly.

Any union issues were dismissed as "something that can be worked out."

Funding

Every interview revealed concerns in this category. There is a real sense of financially not being supported by the public while being asked to do more and more. Many felt that good ideas for the use of technology are being withheld and curtailed because of this lack of financial resources.

Declining enrollments slowly but surely are eroding the K-12 funding as well.

Many related a sense of not knowing what to do about this issue. They attribute much of the responsibility for this financial situation to the rapid growth of migrations to the region, most especially by retirees.

Growing awareness of DE's role and challenges to "traditional" education

Among the persons interviewed, all believed that online education is here to stay and view it as beneficial. Interestingly, they did not necessarily view it as "distance" education per say. Rather that it is a distribution channel for education that serves students removed from the point of delivery. Whether the course material is housed on a PC, local area network or at some distant location is immaterial. Reinforcing this view, somewhat, is that in the interviews when discussing DE the examples they provided were for IPV (more on IPV in a moment).

None see DE as a challenge to traditional education but rather as a needed compliment. For K-12 it's a way for advanced students to move ahead or even for other categories of students that might not respond to classroom situations as well as others. All of the K-12 folks believed that very few of their students would be able to "handle" this independent approach and that most require someone to daily monitor progress.

A number reflected on how they would like to integrate online learning into their classroom, retaining the opportunity to interact with students in a 1:1 fashion. Relationships were deemed very important.

Leadership

Over the past two years there has been a substantial turnover in education leadership in the region. Many expressed relief that this has occurred and now look to the future with a bit more eagerness. They also see a bit of reorganizing of who will emerge as the defacto leaders as demonstrated by their actions.

The change in leadership at SOCC was unanimously reported as positive but with some concern of what this portends as the new president remains an unknown at this time. Generally speaking, there is a looking to the college to provide educational leadership in the region. This applies to the use of technology for education as well as for other facets of education. Outlying areas want to see the face of the new president in their communities and not just "once in a blue moon." One long time superintendent in a rural community stated that the previous SOCC president never once met with him.

K-12 superintendents have also seen considerable turnover within the past 2 years. All deemed this favorable.

Learning centers/libraries – access times

A number of comments were directed to the availability of learning centers, especially outside of the Coos Bay area. Where access to Internet-ready PC's exists, the hours of availability do not match the times when students want to use the resource -- Sundays and late at night.

Online or IPV or both?

Many reported that they have stopped using IPV and have little or no interest in its use for course delivery for the foreseeable future. Issues include coordination of class schedules across districts, emergence of other modalities, that IPV remains a place and time-bound delivery method, poor quality of reception, lack of preparation of teachers, and funding.

They do see it as valuable for meetings and in-service as it can eliminate the need for travel.

The decline in the use of IPV in the region mirrors many other areas of Oregon and the issues reported are very similar.

Online courses are of great interest, especially for those who work during the day or who want to move ahead in their K-12 path. In the K-12 setting there remains a perceived need to monitor carefully progress of online students.

The use of the blended approach of online plus IPV is of interest to many. For the K-12 group it's seen as a way of "putting a face" on the instructors and students and providing an important social interaction component to the learning process. It's also seen as mandatory for developing fluency in spoken foreign language skills.

Older students ("non-traditional students) by and large are not perceived as having a great deal of interest in the use of IPV or even in the blended approach, except where it absolutely must be used to address certain topics.

Interestingly most indicated that the blended approach would be a great way to deliver training on DE tools, course development, course delivery and course administration.

Partnerships

Ample opportunity would seem to exist in this category. Not that there aren't a number of partnerships in place. But rather there is an opportunity to develop others. One example is the library construction projects in Port Orford and Gold Beach and the potential to create DE learning centers at those locations.

Healthcare is another arena wherein there's ample opportunity to find synergies for DE usage. There already is underway such a regional partnership addressing nursing. Every effort to build

on that growing relationship should be invoked. There will be a high need for DE, especially in the didactic portion of the program. As students move through the program, IPV becomes an important education delivery mechanism.

There is also need to address other areas of healthcare workforce shortages. Developing multi-use learning centers in rural outposts along the coast is an objective worthy of continual evaluation and a search for opportunities. Interviews with rural persons really drove this home. Not that there isn't some level of activity in this arena but there is a need to ensure that it remains a front-burner topic.

Workforce development entities see SOCC as a key and critical partner in the region. Yet they have a sense of not being "fully engaged" in the planning process for curriculum development.

K-12 folks see SOCC as a partner in providing DE development and support offerings. Some suggested development of a certification in DE instruction.

Public awareness of availability and value of DE

Opportunities to increase public awareness of the availability of DE need to be pursued. But it's more than just running ads. There's a perceived need for DE promoters to get out into the field to meet with service groups, to meet with community faith-based groups, to travel to rural communities and hold awareness seminars and provide demonstrations and to use the media to promote DE.

There's a perception that the college believes the world revolves around them. That they are there and if someone wants something, all they have to do is go there or get in touch. Outreach is not as effective as they (SOCC) might believe.

When promoting the opportunity to use this distribution medium for education (DE), there needs to be a sharing of how this will help individuals help themselves.

Some spoke of the opportunity to use the Website and email more effectively in program promotions.

Student preparation, commitment and support

Students we spoke with generally were quite favorable to DE as it meets their needs. Cost was an issue. Reliability and connectivity (bandwidth) were also discussed. They appreciate Karen Sadler's knowledge, service orientation and friendly approach but are concerned that there is only one of her. They spoke to needing more support when they were using the service, which is likely to be later in the evening or on the WE's.

Quality of the courses was mentioned, especially consistency of quality across courses. They wondered if other teachers outside of the instructor reviewed the courses.

All of the students suggested that a DE instructor needs to have completed the taking of at least one online course before developing and delivering an online course.

Technology and high-speed telecommunications resources

No one saw a need for additional PC's. No one wants to take donations any longer, as this just seems to be a transfer of one person's old and defective equipment recycling problem to the schools. Local Area Networks (LANs) at facilities are adequate. We have come a long way from several years ago when getting PCs was the issue. Replacement of PCs may become an issue but planned replacements are generally in the works.

Telecommunications infrastructure did come up frequently, especially in the context of IPV and in home usage. There's a sense that they can "get by" for now but are concerned about future needs/demands, although there are times in some districts when too many online activities can result in slowness and even stoppages. The example of downloading the streaming videos during class times rather than as an overnight download came up a number of times.

Telecommunications infrastructure in many areas constitutes a digital divide that will and does have an impact on delivery and planning for DE. Everyone commented on the lack of high-speed resources, especially in the more rural areas of the region. This is viewed as a substantial bottleneck to progress for the region and not just for educational uses.

Questions gauged to reveal the knowledge of the way in which such telecommunications gets provided or the strategies necessary to obtain such revealed a vast misunderstanding and frank confusion over the "mysterious" telecommunications industry. There was a widespread understanding of the implications of broadband for education, healthcare, economic development, access to government and other aspects of usage. There is a great sense of confusion of how to make it happen for "my area."

Regional Educational Technology Planning Today

The existing South Coast Regional Technology Plan developed by The South Coast Regional Educational Technology Task Force is updated annually with the last update occurring in November of 2004.⁶⁴ Regional planning is the self-declared responsibility of the South Coast Regional Educational Technology Task Force.

The Task Force is made up of representatives from each of the regional school districts, the South Coast ESD, SOCC, and the Southwestern Oregon University Center (see appendix for list of participating members). The Task Force includes administrators (school superintendents and deans), educators (faculty and curriculum coordinators), and technical experts (systems analysts and technology specialists). It is the intention of the Task Force to expand its representation by inviting community and business representatives to join the Task Force or serve on an advisory committee to the Task Force.

The Task Force is to meet semi-annually to discuss changing technology needs, to share information about evolving technology issues within each school district or institution, and, when appropriate, and to update the Regional Technology Plan. The mission statement is:

“To collaborate in developing, coordinating, and supporting the use of technology to enhance access to, and learning opportunities for, the students and residents of the South Coast.”

It’s the responsibility of each of the educational Task Force partners to develop its own infrastructure through the formation of district technology committees, technology advisory committees, and school technology committees, and to coordinate the work of those committees with other groups

The document is comprehensive in its scope and addresses 6 categories:

1. Enhancing Student Learning to Assist All Students in Meeting Challenging Academic Performance Standards
2. Facilitating Access to Training and Professional Development
3. Promoting Workforce and Economic Development
4. Enhancing Regional Technical Infrastructure
5. Facilitating Access to Technology
6. Increasing Communication to Improve Education

Some observations on the Regional Technology Plan and process:

- The process in place today encourages each of the partners to develop its own infrastructure as well as the sharing of technology expertise.

One wonders at the possibilities for pooling purchasing, technical support and aggregating demand for telecommunications.

- There’s a commitment to educate and inform the community about the Regional Technology Plan.

Field interviews indicated no awareness of any substantial activity on this commitment. That does not mean there hasn’t been any, just that key regional players are not aware of anything that has occurred.

- Each of the educational partners is to provide sufficient staff to support its technology-related activities and to provide appropriate representatives to the South Coast Regional Educational Technology Task Force.

Again a worthy commitment that may come under increased financial pressure under the “consolidation of services” theme rampant among certain political factions.

- Each of the educational partners is encouraged to develop an appropriate plan for providing training and professional development activities to assist all faculty,

administrators, and staff in becoming effective users of technology.

One wonders at the possibilities and synergies for pooling technical support and training.

- The Task Force is a forum for communication and collaboration in the area of workforce and economic development.

Yet the Task Force does not include workforce and economic development representatives from outside the education community.

- The Task Force is not funded. The Task Force is a voluntary body collaborating to enhance learning opportunities through the use of technology. As such, it has no fiscal base and seeks no funding; however, partners in the group are encouraged to collaborate to access competitive grants and funding and to cost-share in the acquisition of hardware, software, and bandwidth.

Interviews with some of the participants cast this as an “every now and again” activity that has no real legs.

- DE is supported.
- A great “wish list” but no commitments to dates for actualization, no prioritization of planning elements and no shared funding to achieve its worthy goals.

Again, interviews revealed some of the participants cast this as an “every now and again” activity that has no real legs.

The Southwestern Oregon Community College Institution-wide Technology Plan - 2004-2006 reflects awareness of an increasing need to improve access to quality educational experiences for the residents of the region. Many of the Technology Plan Committee also serve on the South Coast Regional Educational Technology Task Force. The plan reveals a comprehensive awareness of SOCC educational technology support needs. As with the regional plan, there is no shortage of well-conceived ideas. Funding would seem to be the most significant challenge, followed by the staffing required to manage a departmental growth objectives.

A Distance Education Summit was held May 13, 2005 with good attendance from community leaders and educators. Presentations demonstrated use of eLearning at all levels. Guest speakers featured representatives from the Oregon Department of Education, Department of Community College Workforce, Oregon University System, Southern Oregon ESD and others.

This effort is the first truly regional approach to crafting a distance education strategic plan for the region.

Oregon Legislation – 2005 Legislative Session

A number of education measures made it into law in the 2005 session that just concluded. Here is a few that bare watching as they are implemented.

Senate Bill 85 – Allows recipients of advanced technology education and training grants and loans to use money for any specified purpose. *Effective Jan. 1, 2006.*

Senate Bill 300 – Creates Expanded Options Program beginning in 2006–07 to allow public school students in grades 11 and 12 or are 16 years of age or older to earn post-secondary college credits while still in high school; requires school districts to allocate 50 percent of their General Purpose Grant for each participating student. *Effective Jan. 1, 2006.*

Senate Bill 342 - transfer legislation, directs community colleges and state institutions of higher education to cooperate in operating a statewide articulation and transfer system to ensure that the postsecondary education needs of students are met without unnecessary duplication of courses. *Effective upon the Governor's Signature.*

Senate Bill 1071 – Creates the Oregon Virtual School District within the state Department of Education to provide online courses to public school students; allows the Superintendent of Public Instruction to contract with public entities to provide online courses. The Superintendent of Public Instruction may contract with education service districts, school districts, public charter schools, community colleges, state institutions of higher education or any other public or private entity to provide online courses through the Oregon Virtual School District. *Effective July 1, 2005*

Senate Bill 5510 – Appropriates \$5.24 billion to the state Department of Education for the 2005–07 State School Fund; adds \$23 million to the 2006-07 appropriation if state general fund revenues projected in the June 2006 quarterly revenue forecast exceed the amount of those revenues in the close-of-session forecast. *Effective upon Governor's Signature.*

Senate Bill 5514 - Oregon Coast Community College - New facilities \$4,500,000. Southwestern Oregon Community College - Curry County facilities \$2,300,000. *Effective July 1, 2005*

"We've been waiting 10 years for a facility in Brookings that will be more efficient than the little library building we are using now," said Peggy Goergen, associate dean of community education for the Curry County program. "This gives the opportunity to build a building more educationally designed."

The bill has gone through the legislative process and is waiting approval from Gov. Ted Kulongoski before it becomes official, Goergen said.

If approved, the Brookings campus will receive the funds and begin construction on a new education facility north of town on property being donated by U.S. Borax in its Lone Ranch development, she said. The current facility is located in 420 Alder in Brookings at the former community library building.⁶⁵

Note: For a more complete listing of K-12 legislation passed in the 2005 session, go to <http://www.osba.org/leginfo/report/05sumry.pdf>

Regional Telecommunications Infrastructure and Services

Telecommunications infrastructure and service delivery varies widely across the region. Telephony (dial-tone) is generally solid, unless there is a cut in the feeder fiber for the south coast that connects via a fiber run through the Camas Valley (highway 42) area. The lack of route redundancy or route diversity is a serious issue for the south coast.

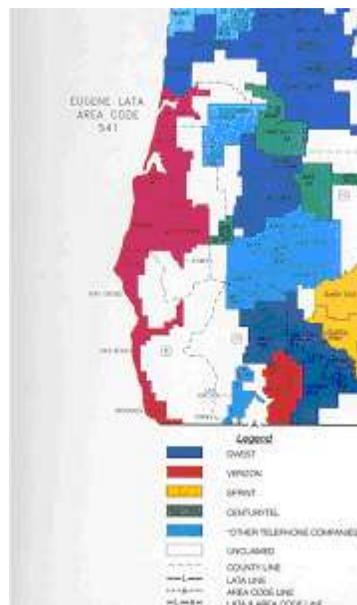
While telephony is generally ubiquitous and reliable, broadband is not nearly as widespread in its availability. Rugged terrain, low penetration rates (demand pull), expensive (yet declining) equipment costs, manpower costs for additional engineering expertise, and rights of way issues all add up to a very difficult return on investment for a provider.

There is a distinct lack of competition outside of Coos Bay and Brookings. High-speed options where available are not affordable to students. A large portion of the region is very rural and not served with any form of high-speed telecommunications, save expensive satellite connections.

The day of sitting back and waiting for your local telco to make broadband happen in your rural community are over. Resources are available to help work through the planning process and to help identify funding resources.

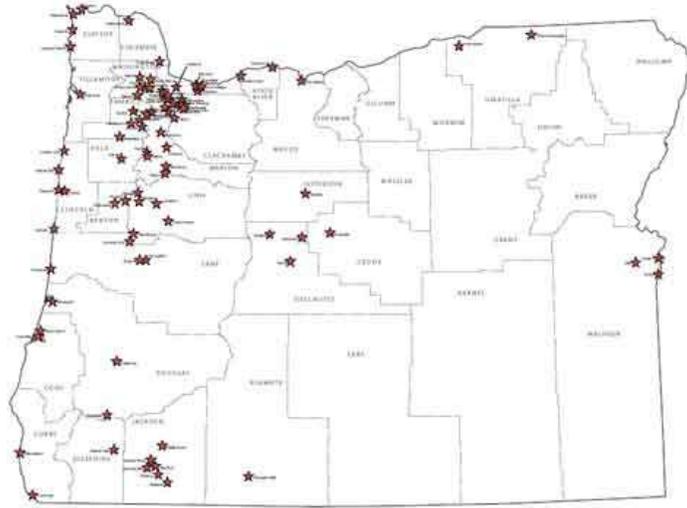
For more on solutions, see Action Item 2.3 – Collaborate to create regional telecommunications solutions.

Telephone Exchanges On Oregon’s South Coast⁶⁶



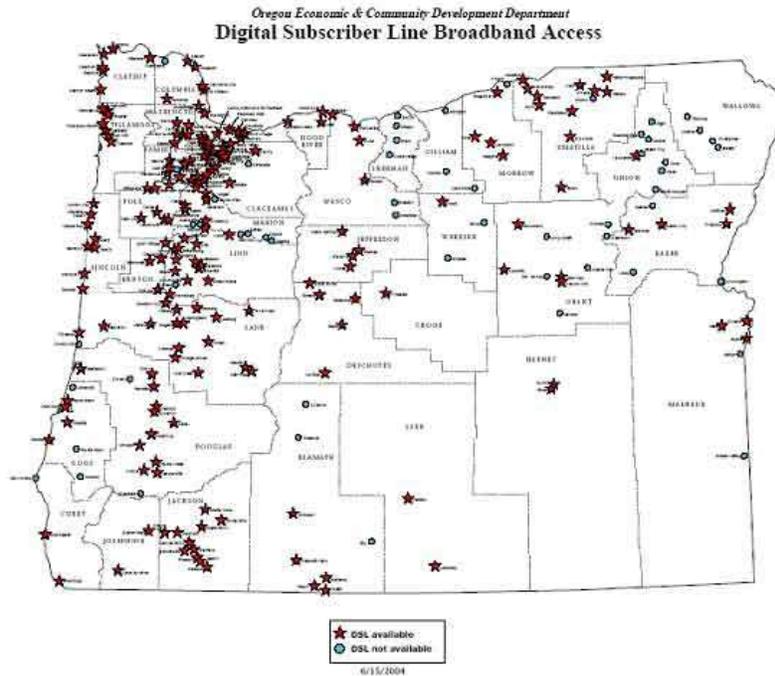
In a word, it’s Verizon for the south coast region

Cable Modem Broadband in Oregon⁶⁷



Charter is the south coast cable provider.

DSL In Oregon

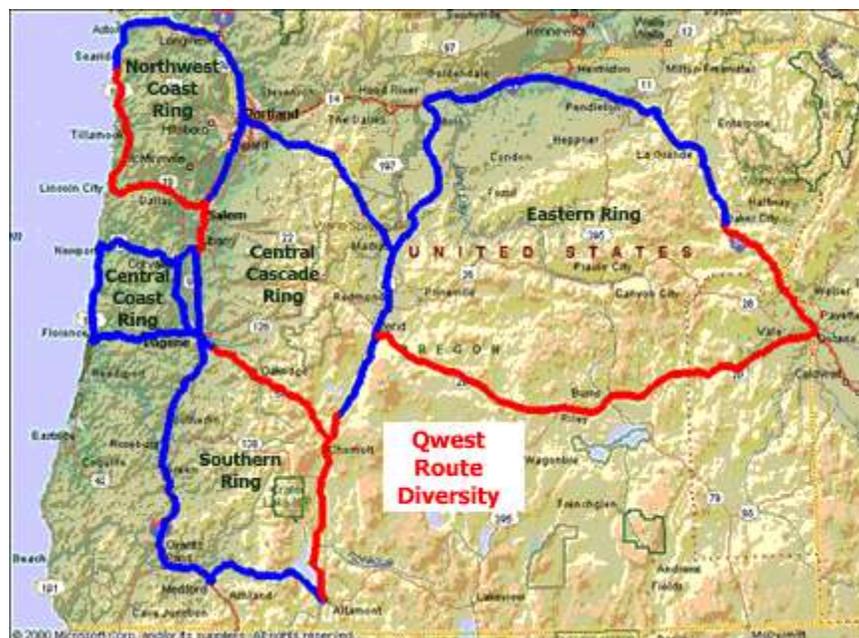


Verizon is the predominant south coast DSL provider. There are others (e.g., Unicom) who resell Verizon DSL under their logo.

Qwest Route Diversity in Oregon

Qwest is the incumbent local exchange carrier (ILEC) in Oregon. Qwest offers a broad range of networking services, including: DS-0 through OC-192 via copper, coaxial, and fiber facilities, layer 2 networks covering a range of services such as private lines, switched packet/cell, DSL and Ethernet, as well as they also bridge layer 2 to layer 3 with a Quality of Service enabled MPLS network. Qwest also offers network management services. As a result of S.B. 622, Qwest invested in increasing bandwidth availability statewide. The goal was accomplished in two ways: by completion of five fiber rings connecting most regions of the state and by making Asynchronous Transfer Mode (ATM) technology available. Qwest installed 11 additional ATM switches in remote areas with the goal of providing very high speed data transmission services for voice, data and video to customers in all of the Qwest switching centers (central offices) at an affordable price.

Note that the Qwest fiber rings skirt the south coastal region.



Charter Communications

Charter Communications is a broadband communications company providing a full range of advanced broadband services to the home, including cable television on an advanced digital video-programming platform via Charter Digital™ and Charter High-Speed™ Internet Service. Charter also provides business-to-business video, data and Internet protocol (IP) solutions through Charter Business Division. With the ability to transmit voice, video and data at high speeds, cable is the primary platform for delivering these services to the home and workplace. Charter is achieving the Wired World vision by developing and deploying advanced interactive services through our broadband infrastructure.

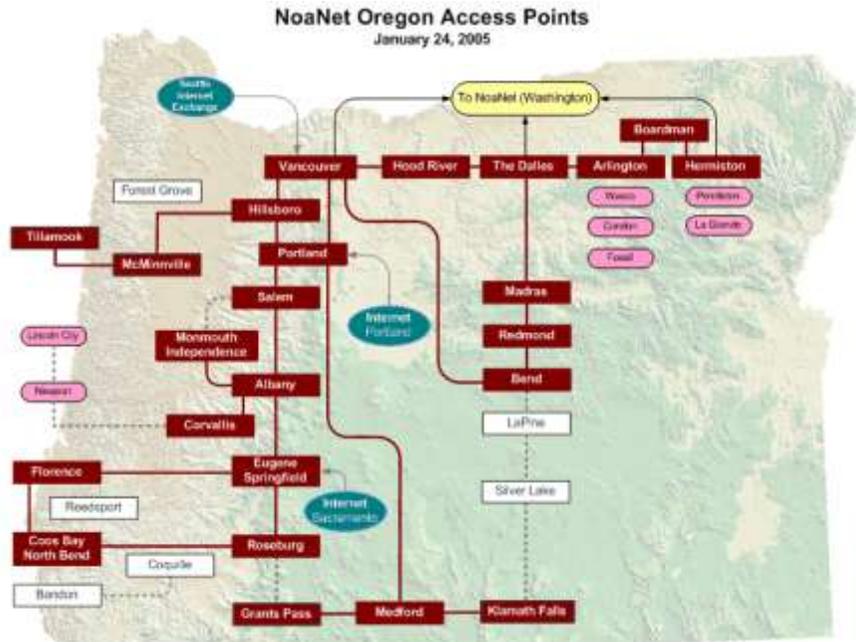


Charter’s POPs or Headends

LS Networks (formerly NoaNet)⁶⁸

NoaNet has ceased to exist as a legal entity in April 2005. LightSpeed Networks, Inc has acquired its assets (2005). Service has continued without interruption. The impact of this change on public sector customers is still being evaluated.

NoaNet Oregon formed in 2002 as a member owned cooperative to lease, light and operate the BPA fiber that runs through the Columbia Gorge, along Highway 97, Interstate 5 and to the west coast of Oregon. The founding members of NoaNet Oregon were Central Electric Cooperative, Douglas Electric Cooperative, Hood River Electric Cooperative, Coos-Curry Electric Cooperative, Coquille Economic Development Corporation, Umatilla Electric Cooperative, West Oregon Electric Cooperative, Frontier Telenet and the City of Monmouth. Q-Life Network, a partnership of The Dalles and Wasco County, joined in 2003.NoaNet offers a diversity of network services, including optical fiber transport, 10/100/GigE Ethernet, and point-to-point and point-to-multipoint VLANs.



NoaNet Members and Access Points

The following map shows NoaNet’s Point of Presence (POP) locations. Since NoaNet does not generally provide last mile services with their own facilities it is necessary for a K-12 or educational other facility to find other last mile connectivity to a NoaNet POP. However, NoaNet does provide some last mile services to Oregon K-12 and other educational facilities through members and partners.



NoaNet POPs and Backbone⁶⁹

ORCA communications

ORCA Communications is located in the greater Coos Bay area.⁷⁰ Tribal One Broadband Technologies, LLC, dba ORCA Communications is a subsidiary of the Coquille Economic Development Corporation. The members of this tribal limited liability company include Coquille Cyberwire Corporation and the Southwestern Oregon Community College Foundation. ORCA was established on January 1, 2002 and began commercial operations on March 1, 2003. ORCA is facilities based CLEC/ISP with over 21 miles of fiber optics in Coos Bay and North Bend bringing path redundant competitive services to the area.

ORCA is an Ethernet transport and Internet access solutions provider that focuses primarily on end-users in the business sector. Ethernet access is preferred for many reasons including lower overhead in the data stream, faster throughput, significantly more scaleable, and lower equipment costs to the end user. Additionally, in order to ensure we offer the widest range of services, ORCA can provide T-1, DS-3, OC-3, OC-12, and OC-48 solutions in cases where the network design requires TDM services.

Unicom⁷¹

Founded in 1985, United Communications, Inc., dba UNICOM, provides quality state-of-the-art telecommunications services to businesses and residences throughout Oregon and Washington. The company adheres to the policy that success in a competitive marketplace requires unparalleled customer service. With this in mind, UNICOM has established regional offices throughout its serving territory for the express purpose of providing personal customer attention to its clients. UNICOM's customer retention rate is one of the highest in the industry due to this commitment.

As an integrated communications provider, UNICOM is truly a "one stop" shopping center for long distance, private line, local line service, high speed Internet, and telecommunications infrastructure. We have the solutions for small to large businesses and can assist in designing and building the most advanced and cost effective voice and data networks.

UNICOM serves a broad range of industries including financial institutions, health care facilities, colleges, legal firms, as well as businesses with multiple locations that require reliable, high-speed transfer of data and voice. Although the largest portion of UNICOM customers are commercial, UNICOM also serves residential customers with high speed Internet access, local lines, and long distance plans on one comprehensive bill.

UNICOM is located in the Coos Bay area and advertises DSL in Verizon territory/

Verizon⁷²

A Dow 30 company, Verizon Communications Inc. (NYSE:VZ) is one of the world's leading providers of communications services. With a diverse work force of more than 208,000, Verizon has four business units: (1) Domestic Telecom serves customers based in 29 states with wireline telecommunications services, including broadband, nationwide long-distance and other services; (2) Verizon Wireless owns and operates the nation's most reliable wireless network, serving 42.1 million voice and data customers across the United States; (3) Information Services operates

directory publishing businesses and provides electronic commerce services; and (4) International includes wireline and wireless operations and investments, primarily in the Americas and Europe.

Verizon does not as yet provide route diversity (AKA: route redundancy) for Oregon's south coast.

Their Website has this⁷³ to say about broadband:

“Our networks are our principal instruments for contributing to society. For millions of customers every day, a Verizon network — wired or wireless — is the gateway to communication, and our fundamental mission is to make that connection as powerful and reliable as possible. To that end, our company has a long history of integrating life-enhancing new technologies into our network infrastructure. From the digital transformation of the 1980s and 1990s to the broadband transformation of today, innovation in communications has made businesses more productive, stimulated entrepreneurial activity, opened up new educational opportunities and generally changed the way individuals communicate, learn and play.

Verizon has been an integral part of this revolution. We have deployed digital technologies throughout our networks, qualifying 49 million lines for digital subscriber line (DSL) services with speeds up to 3 Mbps. We currently have 3.3 million DSL customers in locations across the United States, ranging from inner city to rural communities. We are now transforming our networks again to provide even faster broadband services that meet the demands of the Internet-age customer.

In wireless, we are the first company in the nation to deliver a true broadband wide area network with our deployment of BroadbandAccess, which is based on evolution-data optimized technology (EV-DO). BroadbandAccess provides wireless data service at average speeds of 300-500 Kbps, making such features as Internet browsing, data downloads and e-mail viable services for customers on the go. Initially deployed in San Diego and Washington, D.C., BroadbandAccess will be available in one-third of our markets by the end of 2004 and in additional markets throughout 2005.

In our wired network, we have initiated deployment of Internet Protocol (IP)-compatible switches that can handle voice, data and video transmissions simultaneously—the largest such deployment in the industry. We also are the first telecom company to make a major commitment to deploying fiber-optic cable to customers' premises through our FiOS service. FiOS will deliver up to 30 Mbps speeds to homes and small businesses. While this exciting initiative is just beginning, our target is to reach 1 million homes by the end of 2004 and to double that pace in 2005.

This two-way broadband power will lead to truly transformational applications that will revolutionize commerce, improve quality of life and usher in a new era of innovative services, such as video instant messaging, anywhere education, Web services and information management for small businesses, telemedicine and virtual town meetings.

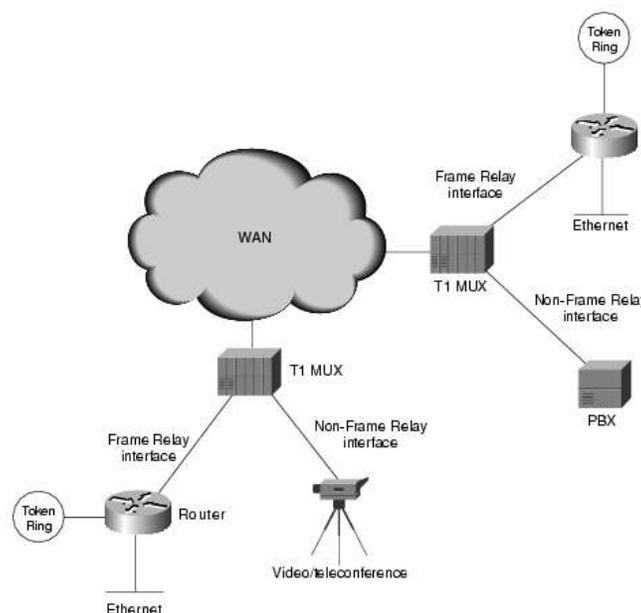
Our networks will be the foundation for thousands of new applications and devices, some provided by us, but many coming from entrepreneurs and users who will tap the power of these technologies in ways we can't even imagine today.”

Verizon provides frame relay technology to service high-speed telecommunications needs of south coast educational institutions.

Frame Relay is a high-performance WAN protocol that operates at the physical and data link layers of the OSI reference model. Frame Relay originally was designed for use across Integrated Services Digital Network (ISDN) interfaces. Today, it is used over a variety of other network interfaces as well.

Frame Relay is an example of a packet-switched technology. Packet-switched networks enable end stations to dynamically share the network medium and the available bandwidth. Frames are variable-length packets of data that are created when a stream of information from an end user's device (a PC, terminal or LAN) is sent to frame-relay specific equipment and divided into smaller parts. Each frame includes the data plus the network address and error detection information. These packets are composed differently than the packets under Internet Protocol (IP).

A typical Frame Relay network consists of a number of DTE devices, such as routers, connected to remote ports on multiplexer equipment via traditional point-to-point services such as T1, fractional T1, or 56-Kb circuits. A common private Frame Relay network implementation is to equip a T1 multiplexer with both Frame Relay and non-Frame Relay interfaces. Frame Relay traffic is forwarded out the Frame Relay interface and onto the data network. Non-Frame Relay traffic is forwarded to the appropriate application or service, such as a private branch exchange (PBX) for telephone service or to a video-teleconferencing application. A typical configuration is shown in the following graphic.⁷⁴



Instead of using costly duplicate lines to connect multiple locations, Frame Relay Service uses the public network to give you multiple Permanent Virtual Connections (PVCs), which are pre-

established paths through the frame relay network. These PVCs provide multiple-site connectivity throughout the same access line. They allow the customer to obtain information on their Frame Relay Network such as port and PVC status and PVC address assignments, and they provide real-time alarms if a problem occurs on the network.

In public carrier-provided Frame Relay networks, the Frame Relay switching equipment is located in the central offices of a telecommunications carrier. Subscribers are charged based on their network use but are relieved from administering and maintaining the Frame Relay network equipment and service.

Verizon was non-responsive to telephone calls requesting information.

Oregon Access Network – Video Conferencing Sites⁷⁵

The network (see next page for map) is used to connect educators and classrooms throughout Oregon, creating a statewide virtual education community. Administrators meet across the miles, saving dollars, time away from work, and hours behind the steering wheel. Many school leaders are now able to attend meetings that they would not have been able to otherwise. Teachers access workshops and other professional development opportunities, including certification and licensure programs through higher education and community college institutions.

Regional hubs provide bridging services for multi-point conferences and scheduling software to manage use of the system. Regional ESD hubs are located at the Southern Oregon ESD, the North Central ESD, NW Regional ESD, Clackamas ESD, Douglas ESD, Willamette ESD, and SouthCoast ESD. Centralized network hubbing and scheduling services are provided through the State of Oregon's video hub, Enterprise Network Services (ENS).

Some of Oregon's ESDs have opted to aggregate video connections using a regional Network approach. This allows use of existing infrastructure with both data and video running over the same circuit, providing a cost savings to all participating sites. Regional connections have the same capacity as sites connected to the state centralized hub, and are now being employed in the Umatilla-Morrow ESD region, Grant ESD, and High Desert ESD.

On the technical side, LPTV stations transmit on one of the standard VHF or UHF television channels. The distance at which a station can be viewed depends on a variety of factors - antenna height, transmitter power, transmitting antenna and the nature of the environment (rural or urban, hilly or flat terrain).

New applications for LPTV and TV translator stations are only accepted during designated filing window periods. The FCC announces these window periods at least 30 days before the opening of the window. The announcement provides details on how to file. Interested applicants should periodically check the FCC's Media Bureau (MB) Web site at www.fcc.gov/mb/video for window announcements.

There is no limit on the number of LPTV stations that may be owned by any one entity. Current broadcast licensees, cable operators and newspapers may own LPTV stations. LPTV stations may operate on any available VHF (2-13) or UHF (14-51) channel provided that they do not cause objectionable interference.

The FCC does not allocate channels for LPTV service. Applicants select channels and apply during a given time period.

LPTV stations are subject to a minimum of program-related regulations. There are no prescribed amounts of non-entertainment programming or local programming, and there are no limits on commercials, and no minimum hours of operation. However, the broadcast of obscene and indecent material between 6 A.M. and 10 P.M. is prohibited.

LPTV stations are limited to an effective radiated power of 3 kilowatts (VHF) and 150 kilowatts (UHF). There are no limits on transmitter output power and on antenna height, as long as the tower structure has been registered with the FCC.

Currently per FCC records there are 6 licensed LPTV stations on the south coast:

Call	City	Licensee/Permittee
K57GP	Brookings	Three Angels Broadcasting Network, Inc
K30BN	Coos Bay	California Oregon Broadcasting, Inc.
K36BX	Coos Bay	California Oregon Broadcasting, Inc.
K49DM	Coos Bay	Watch TV, Inc.
K63DO	Coos Bay	California Oregon Broadcasting, Inc.
K67FV	Coos Bay	Better Life Television

Low Power FM^{77,78}

Low-power radio stations are the most local form of community radio and are often run by volunteers producing their own unique shows. Broadcasting at 100 watts or less, stations usually only have a radius of about 3.5 miles.

The Low Power FM (LPFM) radio service, which was created by the Commission in January 2000. These stations are authorized for noncommercial educational broadcasting only (no commercial operation) and operate with an effective radiated power (ERP) of 100 watts (0.1 kilowatts) or less, with maximum facilities of 100 watts ERP at 30 meters (100 feet) antenna height above average terrain (HAAT). The approximate service range of a 100 watt LPFM station is 5.6 kilometers (3.5 miles radius). LPFM stations are not protected from interference that may be received from other classes of FM stations. A construction permit is required before a LPFM station can be constructed or operated.

LPFM stations are available to noncommercial educational entities and public safety and transportation organizations, but are not available to individuals or for commercial operations. Current broadcast licensees with interests in other media (broadcast or newspapers) are not eligible to obtain LPFM stations.

LPFM stations must protect authorized radio broadcast stations on the same channel or frequency (cochannel), as well as broadcast stations on first, second, or third-adjacent channels above or below the LPFM station's frequency.

LPFM in 2000 promised to open up hundreds of frequencies in urban, suburban, and rural areas alike. It was at this point that a number of major players -- most notably the National Association of Broadcasters (NAB) and National Public Radio (NPR) -- went to Congress claiming that the some of the new stations would sit too closely on the dial to full-power stations and would thus cause interference.

Despite opposition from media-reform advocates and the FCC, Congress decided to restrict the number of frequencies open to the stations. The new regulations still allowed low-power stations to apply for FCC licenses, but they were prohibited from broadcasting on any frequency three clicks or fewer away from another station on the dial.

The decision eliminated about two-thirds of the frequencies formerly available to low-power stations. This move basically shut LPFM out of urban markets, most of which already have crowded dials, making it a largely rural phenomenon. Hundreds of new stations got the go-ahead, but most groups living in the top 150 radio markets got left behind.

Yet over the past several years, LPFM has managed to grow tremendously, both as a radio service and as a lobby, and this fall supporters are back on Capitol Hill, touting a new congressionally mandated study from the nonprofit MITRE Corporation -- which regularly conducts technical studies for the government -- that they claim shows that Congress can expand low-power stations to the third adjacent frequency without harming existing full-power stations. John McCain, Patrick Leahy, and Maria Cantwell have introduced a Senate bill into committee, and this fall, Representative Louise Slaughter is expected to present a House measure that would not only open up new frequencies for LPFM stations but also protect them from encroachment by full-power stations nearby, according to Hannah Sassaman of the Prometheus Radio Project. Right now, LPFM stations are not classified as "primary stations"; consequently, a full-power station that moves closer to an LPFM's broadcast area can legally use its signal. Full-power stations thus threaten a number of LPFMs.

Per FCC records there are 4 LPFM station on the south coast.

Call	Channel	City	Licensee/Permitee
KSEP-LP	99.9 MHz	BROOKINGS	ANCHOR NETWORK
KLYF-LP	100.7 MHz	COQUILLE	COQUILLE CHRISTIAN RADIO, INC
KTJN-LP	101.1 MHz	GOLD BEACH	TOTALLY JESUS NETWORK, INC.
NEW	103.9 MHz	COOS BAY	COOS BAY GOSPEL MINISTRY, INC

In general, LPFM applicants may only apply for a single station. However, on reconsideration, the Commission clarified that government public safety and transportation organizations may apply for multiple LPFM stations for disseminating traffic, safety, and other information where the additional applications are not subject to competing applications. Similarly, where there are no conflicting applications, LPFM applications will be accepted for university student-run LPFM stations from universities holding LPFM licenses that are not student-run. Separate college campuses within a university system, or individual high schools under a single school board, could each individually apply for LPFM construction permits. ITFS (Instructional Television Fixed Service) stations run by universities and colleges that only transmit educational programming are not considered a "broadcast service" under the FCC ownership rules.

Cable Access Television (Public Access TV)

Cable access television is a general term covering a number of special services provided by cable television companies to communities in the United States. There are several other names for this, including local origination, community access, and PEG access (short for public, educational, and government access). Cable companies are required to provide these services at a certain level, though the amount of locally produced programming varies from area to area.

Public-access television is a cable television service that allows members of the public to use a cable company's facilities and equipment to create and broadcast their own content. This service is provided to the public free of charge on a first-come, first-served, non-discriminatory basis, and there are very lax censorship rules. However, funding for public access is typically very limited, so the content and production value of material broadcast on such channels is often of very low quality. Even so, public access TV can be an important outlet for the interests of underserved groups within a community. Occasionally, terrestrial (over-the-air) broadcasters also provide time for public-access programming.

Public access is one of the main types of local origination services from cable TV providers. Related to public access are government and educational access, and also leased access television, which allows for programming of a more commercial nature.

Local governments, educational institutions, and, to a certain extent, commercial entities have rights to the cable system along with the general public. Educational access is used for providing educational material while also allowing area schools to broadcast special events ranging from concerts to school board meetings. Government access is used to broadcast city council meetings

and other municipal events and activities. Across the U.S., more than 20,000 hours of public, educational, and government access programming is produced each week.

Leased access is used largely for advertising. Time on those channels can often be purchased by businesses outside of the local area.

Different municipalities have varying contracts with the local cable companies. Depending on the size of the community being served and the contractual agreement between a municipality and the cable provider, these different access types may all be combined into a single channel, or they may be split across several. There have been some controversial moves made in certain areas across the country, where local programming is outsourced to an entity other than the cable provider. Often, this squeezes the amount of time available for public access programming.

Charter Communications provides public access TV under the franchise agreements with the cities of Brookings and Coos Bay. The main usage is for government access. There is not video production studio per say in the region equivalent to that at Southern Oregon University for use by Rogue Valley TV.⁷⁹

Webcast

A webcast is similar in intent to a broadcast television program but designed for internet transmission. Webcast clients allow a user to connect to a server, which is distributing (webcasting) the webcast, and displays the televisual content to the user.

Initially webcasts were non interactive, in other words, the user was not able to alter the content of the webcast or to interact with the subjects of the webcast. For the most part they were also hosted live (with recordings retained for later dissemination), however more recently there has been greater overlap between videoconferencing and webcasting such that webcasts have been generally consigned to being recordings of videoconferences and training material where there is much less demand for an interactive session.

A live webcast is sometimes conducted in conjunction with a teleconference call that allows for participants to engage the webcaster.

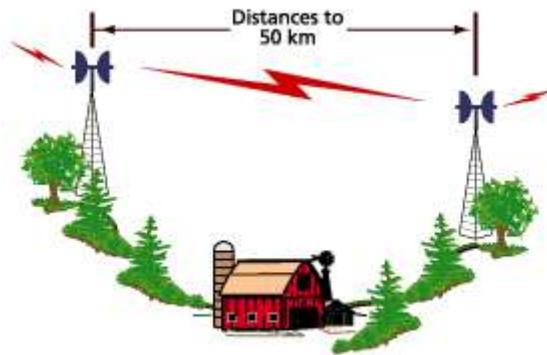
Webcasts require broadband connections to be effective.

Wireless Broadband⁸⁰

Today there are a very few wireless broadband providers in the south coast region. Located in Brookings is Northwest Technical Internet Services⁸¹ where they offer broadband access with a limited footprint due to terrain. Some wireless hotspots can be found at RV camps along the coast, for example in Port Orford on 101.

Wireless broadband, especially Wi-Max may be the future for rural environments in rough terrain.

Fixed-wireless systems have a long history. Point-to-point microwave connections have long been used for voice and data communications, generally in backhaul networks operated by phone companies, cable TV companies, utilities, railways, paging companies and government agencies, and will continue to be an important part of the communications infrastructure. Frequencies used range from 1 GHz to 40 GHz. But technology has continued to advance, allowing higher frequencies, and thus smaller antennas, to be used, resulting in lower costs and easier-to-deploy systems for private use and for a whole new generation of carriers that are planning to use wireless access as their last mile of communication. The terms wireless broadband and broadband wireless are not used consistently, but generally both apply to carrier-based services in which multiple data streams are multiplexed onto a single radio-carrier signal. Some vendors also use the terms to refer to privately deployed networks.



(A backhaul connection is a company's internal infrastructure connection. For example, a phone company's backhaul might be from one central office to another.)

Fixed-wireless systems can be used for almost anything that a cable is used for, whether the cable is a T1 circuit, a cable television cable, an Ethernet cable or a fiber optic cable. Fixed-wireless systems are designed so that they emulate cable connections, and they use the same type of interfaces and protocols, such as T1, frame relay, Ethernet and ATM. Keep in mind that fixed-wireless systems are also used for voice communications as well as for carrying television programming. But most new development in fixed-wireless systems is data-centric, such as for Internet access, or is flexible in supporting both voice and data communications. Fixed-wireless systems match cable-based systems for all-important parameters, including delay, bit-error rate (1 in 100 million or better) and throughput (1 Mbps to 155 Mbps). Consequently any application that operates over a cable should be able to operate over a fixed-wireless system. The only exception is communication involving geosynchronous satellites where delays can exceed a quarter of a second.

In some cases, a fixed-wireless system is the only wireless option. So you must decide if a fixed-wireless connection is practical and if it is competitive with available wireline connections. In many cases, a wireless connection could be the only option for high-speed communications. This is especially true in more remote areas. In some areas, the only option for communications will be by satellite. When both wireless and wireline options exist, the potential reasons to consider wireless include lower costs, faster deployment, greater flexibility and better reliability. Costs

and deployment have to be evaluated on a case-by-case basis and actual costs will depend on the particular circumstances.

Wireless communications offers tremendous flexibility and ever-improving performance, but it does have some limitations. First and foremost, wireless uses radio spectrum, a finite resource. This limits the number of wireless users and the amount of spectrum available to any user at any moment in time. The amount of spectrum available equates almost directly to data bandwidth, with 1 Hz of spectrum typically yielding between 1 mbps and 4 mbps of throughput depending on various factors, such as the type of modulation used and environmental factors. The amount of spectrum actually available varies from radio band to radio band, but suffice it to say that fiber optic cable offers far greater overall capacity. Despite this capacity limitation, wireless offers more than sufficient bandwidth for many applications. But it is important to know the capacity of a particular wireless system in order to understand how it can satisfy your requirements if they should expand in the future. Another limitation is that fixed-wireless systems operate at frequencies that almost always require line of sight and that are restricted to distances that vary from a few miles to tens of miles. It is no mystery why microwave dishes are located at tops of towers, hills and buildings. Unlike cellular and other mobile wireless systems, fixed-wireless systems use fixed antennas with narrowly focused beams. A 3-degree to 4-degree beam is not uncommon. And unlike cellular systems, in which base stations communicate with dozens of mobile stations, broadband systems usually operate in a point-to-point manner, though a number of point-to-multipoint systems are in development. Very few standards exist for fixed wireless systems, so you will need to purchase equipment from the same vendor for both sides of the connection to ensure interoperability.

802.11

802.11 refers to a family of specifications developed by the IEEE for wireless LAN technology. 802.11 specifies an over-the-air interface between a wireless client and a base station or between two wireless clients. The IEEE accepted the specification in 1997.

There are several specifications in the 802.11 family:

802.11 -- applies to wireless LANs and provides 1 or 2 Mbps transmission in the 2.4 GHz band using either frequency hopping spread spectrum (FHSS) or direct sequence spread spectrum (DSSS).

802.11a -- an extension to 802.11 that applies to wireless LANs and provides up to 54 Mbps in the 5GHz band. 802.11a uses an orthogonal frequency division multiplexing encoding scheme rather than FHSS or DSSS.

802.11b (also referred to as *802.11 High Rate* or *Wi-Fi*) -- an extension to 802.11 that applies to wireless LANs and provides 11 Mbps transmission (with a fallback to 5.5, 2 and 1 Mbps) in the 2.4 GHz band. 802.11b uses only DSSS. 802.11b was a 1999 ratification to the original 802.11 standard, allowing wireless functionality comparable to Ethernet.

802.11g -- applies to wireless LANs and provides 20+ Mbps in the 2.4 GHz band.

802.11b (WiFi)

The IEEE 802.11b specification allows for the wireless transmission of approximately 11 Mbps of raw data at distances from several dozen to several hundred feet over the 2.4 GHz unlicensed band. The distance depends on impediments, materials, and line of sight. This specification started to appear in commercial form in mid-1999. 802.11b is an extension of Ethernet to wireless communication, and as such is ecumenical about the kinds of data that pass over it. It's primarily used for TCP/IP, but can also handle other forms of networking traffic, such as AppleTalk or PC filesharing standards.

Each radio may act, depending on software, as a hub or for computer-to-computer transmission, but it's much more common that a WLAN (wireless local area network) installation uses one or more access points, which are dedicated stand-alone hardware with typically more powerful antennae. Similar to access points are residential gateways, a new class of device, which offers similar features but without the advanced management required for corporate networks or high-traffic installations. The standard is backwards compatible to earlier specifications, known as 802.11, allowing speeds of 1, 2, 5.5 and 11 Mbps on the same transmitters. Several new, incompatible protocols are in the process of being released, including 802.11a (54 Mbps over the 5 GHz band), 802.11g (22 Mbps over 2.4 GHz), and Texas Instruments' PBCC 22 Mbps standard.

An industry group known as the Wireless Ethernet Compatibility Alliance (WECA) certifies its members equipment as conforming to the 802.11b standard, and allows compliant hardware to be stamped Wi-Fi compatible, short for Wireless Fidelity. The Wi-Fi seal of approval is an attempt at a guarantee of intercompatibility between hundreds of vendors and thousands of devices. (The IEEE does not have such a mechanism, as it only promulgates standards.) 802.11b has become the only standard deployed for public short-range networks, such as those found at airports, hotels, conference centers, and coffee shops and restaurants. Several companies currently offer paid hourly, session-based, or unlimited monthly access via their deployed networks around the U.S. and internationally.

802.11g ("Wireless Ethernet")

Adopted last November (2001) after a long and often-heated debate, the IEEE 802.11g draft standard extends data rates for 2.4-GHz wireless-LAN (WLAN) systems to 54 Mbits/second and provides backward compatibility with existing 802.11b (Wi-Fi) equipment. Both mandatory and optional aspects are included. Basically, the draft standard mandates use of orthogonal frequency-division multiplexing (OFDM) for higher data rates (greater than 20 Mbits/s) and requires support for complementary code keying (CCK) to ensure backward compatibility with existing 802.11b radios. The draft also includes two optional elements, called CCK/OFDM and packet binary convolutional coding (PBCC.) Developers may elect to include either optional element or omit both options entirely.

IEEE 802.11a and 802.11g now share a common high-rate waveform (OFDM) and offer complementary advantages to consumers. IEEE 802.11a systems enjoy more spectrum at 5 GHz, thus allowing for more channels and, by extension, more users. On the other hand, 802.11g

systems provide backward compatibility with existing Wi-Fi devices and offer a range advantage relative to systems operating at 5 GHz.

The emergence of IEEE 802.11g is extremely beneficial for the WLAN market. OFDM is the mandatory high-rate waveform in the 2.4 GHz band. Data rates of up to 54 Mbits/s are now available in the 2.4 GHz band. In addition, backward compatibility with Wi-Fi devices is assured. Longer term, the IEEE 802.11g draft standard represents an important step toward the realization of dual-band (2.4 GHz and 5 GHz) radios. Because OFDM is already required for operation in the 5 GHz band, implementing 802.11g in a dual-band device adds no extra hardware complexity to the resulting product. For dual-band devices, "G is free!"

Wi-Max

WiMAX is a standards-based wireless technology that provides high-throughput broadband connections over long distances. WiMAX can be used for a number of applications, including "last mile" broadband connections, hotspots and cellular backhaul, and high-speed enterprise connectivity for business.

The IEEE 802.16 Working Group has developed point-to-multipoint broadband wireless access standard for systems in the frequency ranges 10-66 GHz and sub 11 GHz. The standard covers both the Media Access Control (MAC) and the physical (PHY) layers.

A number of PHY considerations were taken into account for the target environment. At higher frequencies, line of sight is a must. This requirement eases the effect of multipath, allowing for wide channels, typically greater than 10 MHz in bandwidth. This gives IEEE 802.16 the ability to provide very high capacity links on both the uplink and the downlink. For sub 11 GHz non line of sight capability is a requirement. The original IEEE 802.16 MAC was enhanced to accommodate different PHYs and services, which address the needs of different environments. The standard is designed to accommodate either Time Division Duplexing (TDD) or Frequency Division Duplexing (FDD) deployments, allowing for both full and half-duplex terminals in the FDD case.

The MAC was designed specifically for the PMP wireless access environment. It supports higher layer or transport protocols such as ATM, Ethernet or Internet Protocol (IP), and is designed to easily accommodate future protocols that have not yet been developed. The MAC is designed for very high bit rates (up to 268 mbps each way) of the truly broadband physical layer, while delivering ATM compatible Quality of Service (QoS); UGS, rtPS, nrtPS, and Best Effort.

The frame structure allows terminals to be dynamically assigned uplink and downlink burst profiles according to their link conditions. This allows a trade-off between capacity and robustness in real-time, and provides roughly a two times increase in capacity on average when compared to non-adaptive systems, while maintaining appropriate link availability.

The 802.16 MAC uses a variable length Protocol Data Unit (PDU) along with a number of other concepts that greatly increase the efficiency of the standard. Multiple MAC PDUs may be concatenated into a single burst to save PHY overhead. Additionally, multiple Service Data

Units (SDU) for the same service may be concatenated into a single MAC PDU, saving on MAC header overhead. Fragmentation allows very large SDUs to be sent across frame boundaries to guarantee the QoS of competing services. And, payload header suppression can be used to reduce the overhead caused by the redundant portions of SDU headers.

The MAC uses a self-correcting bandwidth request/grant scheme that eliminates the overhead and delay of acknowledgements, while simultaneously allowing better QoS handling than traditional acknowledged schemes. Terminals have a variety of options available to them for requesting bandwidth depending upon the QoS and traffic parameters of their services. They can be polled individually or in groups. They can steal bandwidth already allocated to make requests for more. They can signal the need to be polled, and they can piggyback requests for bandwidth.

Today, a Wi-Fi mesh-network offers mobility, while WiMAX offers a long-distance backhaul and last-mile solution. The best solution is a combination of the two.

Summary of south coast telecommunications assessment

Telecommunications infrastructure and service delivery varies widely across the region. Telephony (dial-tone) is generally solid, unless there is a cut in the feeder fiber for the south coast that connects via a fiber run through the Camus Valley area. Route redundancy or route diversity is a serious issue for the south coast. Discussions with Verizon on this issue that have included the Oregon Public Utilities Commission (OPUC) have not to date yielded any results to alleviate the issue, just promises. Service interruptions of up to 8 hours have occurred in recent years, bringing commerce to its knees (no ATMs, no credit card verification, public safety is compromised, healthcare services are cut off from the rest of the world, etc., etc.).

While telephony is generally ubiquitous and reliable, broadband is not nearly as widespread in its availability. Rugged terrain, low penetration rates (demand pull), expensive (yet declining) equipment costs, manpower costs for additional expertise, and rights of way issues all add up to a very difficult return on investment for a provider.

Other complicating factors stem from the remote ownership of major provider companies and their use of mass marketing approaches to building and maintaining their businesses. Too often they have not taken the time or made the investment to search out niche opportunities, such as those that exist along the south coast. They provide services but are not necessarily members of the community nor engaged in a community save in a very cursory fashion. The large companies are notorious “cherry pickers, and who can blame them for maximizing their bottom line on behalf of their shareholders, management and sometimes even for their employees. These large slow-moving giants have done a great service to the country and to the region when it comes to dial-tone, but they are falling down on their broadband service delivery to the difficult to reach customer living in rugged terrain and on the fringes of populated areas.

High-speed Internet is now an essential, just like electricity and phone service. Dial-up is a full-time reality for many rural residents. If someplace doesn't have broadband, people are less likely to move there and start businesses there. A century ago our government pursued a policy of "universal access" to make sure that telephone and electricity technologies would be available to

all. In that spirit, President George W. Bush has set a goal of high-speed Internet access available in every home in America by 2007. The likelihood of that goal being realized within the timeframe is zilch. The good news for rural America is that new wireless technologies might make it much easier for companies to extend broadband down the unpaved roads and over the hills.

So it falls to the creative few in rural communities to define their market opportunity and bring it to the companies. If that fails then there likely are other opportunities to find private investors to form a small company to deliver broadband. Some communities have decided that this is of such critical importance that they have taken it on as a community responsibility. Today we a wide variety of technologies that can meet needs without breaking the bank. Most likely they will be found in the wireless technologies (i.e., WiFi and Wi-Max) that have emerged and are emerging.

The day of sitting back and waiting for your local telco to make broadband happen in your rural community are over, if you need it now. Resources are available⁸² to help work through the planning process and to help identify funding resources.

Technology, most especially telecommunications, is forcing a sea change. Today we are in the early stages of an historic telecommunications transition similar to the transition from telegraph to telephone service. However, the pace of change is now much faster as we transition from an analog narrowband circuit-switched telephone technology to a digital broadband Internet-protocol based multi-media network.⁸³ At the start of the 21st century people and communities that lack broadband services are disadvantaged in the same way that people and communities without electricity or telephone service were disadvantaged in the first half of the twentieth century. We are in a continuing communications-information age revolution with far reaching implications.⁸⁴

Many in our communities seek, appreciate and even expect guidance and leadership as we move forward on this wave of change. Like the expansion of railroads, the adoption of telephone technology, and the distribution boon of our modern highway system, broadband is altering the fundamentals of our core infrastructure and how we live, work, learn and function politically.

Our world has been changed by the proliferation of the Internet, mobile phones, communication devices, e-commerce, and networks. These changes, however, mark only the very beginning of a new age of anytime/anywhere “connectedness.” The rapid emergence of broadband and establishment of true connectedness will entail a dramatic transformation in the very nature of our economies, societies and governments, as well as interpersonal and international relations.

Imagine today’s broadband as a footpath to easily access communications services like the Internet. Tomorrow’s broadband is a superhighway -- with state-of-the-art technologies that engage us visually, verbally and kinetically. Broadband offers us new forms of communications when we want them and how we want them.

Today, when we think of connecting with others, we think in terms of telecommunications based on voice transmission and computing based on isolated desktop PCs. The convergence of voice,

data and video, the growth of communication bandwidth, and the low cost of access devices (fixed and mobile) are paving the way for a new, inclusive model of connectivity.

Community leadership plays a critical role as we enter this new Information Age, helping to foster the understanding, cooperation and collaboration necessary to gain full advantage of these opportunities for their residents.

Broadband is proliferating across rural and urban America, expanding economic opportunities (jobs) and improving cornerstone services such as health, government and education. These technologies have now become linchpins for successful economic development and quality of life improvements. Often we find that the supply side of the equation seems to be at the forefront of the discussion (i.e., infrastructure and services) while too often the technologies are underutilized (demand side). We often see chaotic, haphazard and contentious approaches to growth and utilization of these services that can detract from the economic and quality of life goals for our populations.

21st century information age community strategic planning helps foster a coordinated approach for leveraging a key component of economic preparedness, knowledgeable use of telecommunications, toward enhanced economic and community development. Community leaders need to provide a strategic direction in these matters that have such a widespread impact on their businesses, institutions and residents. Development of a coordinated and collaborative approach (i.e., a strategic plan) to foster economic development is among the appropriate responsibilities addressed by well-managed communities.

Creating a coordinated approach to fully utilizing these critical resources will also result in vastly improved economic opportunities as well as quality of life factors (e.g., healthcare, education, access to government, entertainment).

These approaches benefit both the private sector as well as meets public policy desires (e.g., telecommunication providers show increased revenues while economic growth is achieved – it's a win-win situation).

Many private businesses, public organizations and elected officials have expressed the need to implement a community telecommunications and technology plan. Many communities have, or are working on similar plans. This strategic planning process is an essential step toward ensuring that a community remains on par and competitive with other communities in the region, even with other states and countries as this is also a global economic participation opportunity.

The immediate and long-term economic and community development goals of a community will be served by a widely agreed to strategic approach for broadband infrastructure development and usage.

This planning will build on the experience and knowledge gained from previous efforts to develop a public and private sectors community collaboration to facilitate the further expansion and usages of advanced telecommunications services in the community. A viable and sustainable framework for guiding activities will be derived from understanding common goals, aggregating

demand where it makes sense, and encouraging widespread integration of these beneficial technologies into the daily lives of businesses, institutions and residents.

A 21st century information age community strategic planning process will employ a regional collaboration to assess the community's needs and opportunities, economic and geographic barriers as well as other factors related to building an ubiquitous broadband infrastructure; develop recommendations regarding appropriate broad standards for technologies and synergistic management of the networks, seek ways to coordinate critical education components and result in a comprehensive plan. The key elements of the plan include: opportunities for public-private partnerships, demand aggregation where appropriate; a strategy for basic and affordable broadband services across the community of users; collaborations and joint negotiations geared to increase usage of services for economic development.

Typical steps for the project include 1) inventory/needs assessment, 2) Vision, Mission and Goal/Objectives identification and 3) 3-5 year action plan. Please note that this approach is not necessarily directed toward a community becoming a competitive provider of telecommunications infrastructure or services. This is an option that needs very careful consideration.

The planning process will promote community wide collaboration and cooperation toward improved access to affordable broadband solutions, improved and focused economic and community development strategies employing telecommunications, and increased access to higher wage employment opportunities. The end result will be highly conducive to economic growth prospects; improved access to healthcare, government, education and entertainment.

Entrepreneurs and existing communications businesses will have an understandable framework within which they can compete to provision services for the community's residents. The outcome will be a comprehensive strategic plan, providing critical data on the current status, type and cost of broadband capacities in the community; status of usage and opportunities for promoting increased usage, and a series of action steps mapped to agreed-to goals/objectives for telecommunications in the county.

On completion of this strategic plan the community economic development interests will be better prepared to solicit additional investment into the community, creating even more jobs for residents. Healthcare institutions, education, government, not for profits and residents will be better prepared to coordinate efforts towards the continued improvement of the quality of life for community residents.

The south coast needs to engage in a regional strategic planning process with an outcome of ubiquitous and affordable broadband in the region.

DE and/or Technology at Regional and Other Institutions

Community Colleges

This section provides a survey of selected community colleges in Oregon. They reflect a range of DE offerings.

Blue Mountain Community College⁸⁵

At Blue Mountain Community College Distance Learning programs connect people via technology for convenient, flexible teaching and learning. They bring the classroom to you, providing courses that transfer and appear on your transcript just like campus-based courses. Blue Mountain Community College offers a variety of delivery options that fit your needs. Those options include video courses, home study, our online Web site, or Live Interactive Television.

Course Delivery Methods:

- Video Courses
- Online/Internet Courses
- Independent Study
- Telecourses
- Interactive Television (ITV)
- Regional & Evening

For tuition purposes, Oregon residents and residents of California, Idaho, Nevada and Washington are charged at the in-state resident rate of \$58.30 per credit hour. The Distance Education Course Fee is \$55.00.

eCollage⁸⁶ is the course delivery platform

Not a large offering of online courses but with a several IPV courses offered.

Work is underway to develop a Hispanic business entrepreneurship certificate. This could be an opportunity for a future partnership.

Chemeketa⁸⁷

Chemeketa Online provides a wide range of 261 online courses (WebCT), 21 telecourses and 7 Chemeketa TV (CTV) offerings. The preponderance of classes is offered via online.

The degrees available online are:

- Associate of Arts Transfer Degree
- Associate of General Studies
- Associate of Applied Science in Hospitality and Tourism Management
- Associate of Applied Science in Fire Protection Technology - Fire Prevention
- Associate of Applied Science in Fire Protection Technology - Fire Suppression

The certificates available online are:

- Business Software Certificate
- Computer-Assisted Drafting (CAD) Certificate

Chemeketa Online offers continuing education for workers who require training to maintain licensing or certification in their profession.

eTransfer Center - Check out the requirements for many of Oregon's universities and four year colleges. The eTransfer Center will let you know which Chemeketa courses you can take to fulfill the requirements where you want to transfer.

New students are encouraged to attend a free "Getting Started" class. Attending the class will allow priority registration for the upcoming term. Students must have completed an Admission Application and placement test (Compass or Asset) prior to class.

There is no cost to enroll in Chemeketa Community College. Tuition and fees at Chemeketa are due when you register but a payment plan can be arranged. For most online courses, tuition is \$58 per credit plus a \$50 fee for each online course. There is also a Universal Access Fee of \$4 per credit. So, for example, a 3 credit online course will cost \$236 (\$174 + \$50 + \$12).

Out-of-state students will be charged \$58 tuition per credit, the Universal Access Fee of \$4 per credit, plus a \$50 fee for each online course.

International students will be charged \$199 tuition per credit, the Universal Access Fee of \$4 per credit, plus a \$50 fee for each online course, plus a non-refundable fee of \$265 per term for students attending on an F1 visa. (Students attending on other visa types are charged a non-refundable fee of \$75 per term.) If you are an international student who is required to have an I-20 immigration document, you are considered an international student as long as you are required to have that document.

Deferred tuition payments: You may pay tuition in installments by paying one-half of the amount due plus a \$15 contract fee. Make sure your schedule is complete before finalizing your contract since you will need to pay another \$15 fee if you add tuition for additional classes to your contract.

Lane Community College⁸⁸

Distance learning refers to instruction that is delivered through technology to students at a distance from their instructor. These credit courses are a convenient alternative to on-campus classes for students who live out of the local area, have transportation issues, physical limitations, or family or work responsibilities that interfere with attending classes on campus. The Associate of Arts Oregon Transfer degree can be earned through distance learning courses.

Modes of distance learning course delivery for fall 2005 offered by Lane include:

- Live Interactive Courses (4) - Students enroll in courses and participate either by viewing the class on cable off campus or by attending in class on campus. Students register for their preferred option. Students must have Internet access.
- Online Courses (33) –courses delivered via computer modem. Students must have access to a computer, modem, and specific hardware and software for access to the course and for interaction with the instructor and classmates.
- Telecourses (16) - a coordinated learning system based on a series of videotaped programs, supplemented by printed materials, email, the Internet, and supervised by an assigned instructor

WebCT is the online course learning management system used at Lane. A technical orientation program explaining how to use WebCT and its features will be shown on Comcast channel 23 and Charter Communications channel 9 during the first two weeks of the term. Videotapes of this orientation will also be available for viewing in the main campus Lane Library, at LCC at Cottage Grove and Florence, and at the Churchill, Elmira, Junction City, McKenzie, Oakridge, Thurston, and Willamette Community Learning Centers.

No IPV noted.

Tuition for credit courses is \$67 per credit hour, plus a \$3 per credit technology fee. Nonresidents of Oregon and international students pay \$230 per credit hour, plus a \$3 per credit technology fee. Telecourses have an additional \$25 fee. Online fees vary. See individual listings for amounts. All students are also charged a transportation fee. Students who are only enrolled in distance learning courses are not charged the ASLCC student activity fee and do not have the option to purchase a student body card.

Portland Community College⁸⁹

PCC offers four types of Distance Education Classes: Online, Telecourse, Interactive Television (ITV) and Teleweb Classes, a combination of Online classes and Telecourses. Columbia Gorge operates under the PCC accreditation.

Online courses are offered via WebCT and hosted by Oregon's Department of Administrative Services (DAS). Over 300 DE classes are offered with 250 offered online via WebCT, resulting in an estimated 25,000 seats. Relatively few videoconference classes are offered. Speculation is that these offerings are just not as flexible as the online courses (i.e., online is not time or place bound). Courses are wide-ranging.

Using data from the last survey from 2002, the male: female ratio is approximately 40%:60%. Hispanics represent about 3% or more of enrollment and is growing. About 58% of enrollments are from in the district, 6% in Oregon and 12% out of Oregon.

Faculty is supported throughout the process. Resistance to participating in the DE offerings has fallen. First with basic training on use of the tool as well as course preparation, then with ongoing peer review. Brand new courses are reimbursed using a formula of a contract rate times

the number of credits and average around \$2,500. Already developed courses that only require a bit of touch-up to deliver come in at a lesser number. It's all built into their contract.

PCC experience with DAS as the host is rated as excellent. Satisfaction is such that they have no intention of hosting WebCT themselves at this time or in the foreseeable future. The one drawback is the need for students to have separate logins for their administrative management vs. their online courses. But this has not made a significant difference overall. The IT people love this arrangement as it is one less headache and it saves dollars overall (e.g., not having to have an additional system administrator).

PCC seeks the opportunity to partner with other institutions on niche opportunities, for example allied health and medical lab technician.

Resident Tuition is \$62 per credit. To qualify for resident tuition, you must be an American citizen or immigrant with a permanent resident status in Oregon or the bordering states of Idaho, California, Nevada and Washington.

Tuition: Non-resident Tuition is \$190 per credit. Non-residents include international students and students residing in states which do not border Oregon.

Technology Fee, Credit Classes Only - What does it buy? (see below)

1–15 credits	\$3 per credit
15 credits or more	\$45 total

Student Activity Fee, Credit Classes Only \$1.10 per credit

Distance Learning Fee \$20 per Distance Learning course

Lab Fees are set not to exceed a \$30 maximum. Check the course description in the schedule for lab fees specific to the class you are taking.

What Your Technology Fee Buys:

- The fee supports the Computer Resource Centers (CRCs), open 49 weeks per year, serving the Cascade, Rock Creek and Sylvania Campuses, as well as the Southeast Center.
- Twelve instructional computing support specialists for the CRCs. Some of them are lab managers and some of them are computer tutors. These people let us keep the centers open more days, and offer more help to students in the labs.
- Hiring computer lab managers enabled the Computer Resource Centers to be open an additional 60 days a year.
- The Sylvania lab was able to expand from 76 hours to 80 hours per week. We've also added a person to support the Southeast Center student lab, where previously no help was available.

- Computer lab tutors are available in the CRCs at each campus. In addition, Cascade provides a tutor in its Alternative Learning Center. The tutors provide both over-the-shoulder help and free, hour-long workshops.
- Computer labs at the Cascade, Rock Creek and Sylvania Campus libraries, open during regular hours, more than 45 weeks per year. Lab assistants may only be available during fall, winter and spring because it's difficult to get student workers in the summer.
- Three staff members to support WebCT, a instructional tool for managing classes that use Web resources.
- Four full-time and four part-time computer technicians to support the student labs.
- A Student Help Desk providing computer support for all students.
- Web server for pages created by students in certain classes.
- Additional computer literacy material for those who learn best from print. We have printed "how-to" flyers for common tasks. Students also have access to the complete online manuals of all software supported in the labs.
- Training for the support staff, so they can stay up-to-date and able to help students.

Oregon Coastal Community College⁹⁰

Oregon Coast Community College, in cooperation with Chemeketa Community College, offers the opportunity to earn an associate degree entirely by distance education. You can earn an Associate of Arts Degree or an Associate of General Studies Degree through a combination of telecourses and online classes.

Rogue Community College⁹¹

RCC's 69 (fall, 2005) Web-based programs offer a quality educational experience that is both flexible and convenient.

RCC offers their own Web-based program along with courses from other community colleges in Oregon sometimes referred to as "Host/Provider" courses. To take a Web-based course offered by another college then you need to register in person at either the Riverside or Redwood campuses.

Mandatory orientations for RCC Web-based courses are scheduled for both Grants Pass and Medford. These orientations are conducted by the Web-based instructor and are crucial to success for the Web-based student.

RCC uses a course management tool called WebCT to manage Web-based courses. WebCT provides a standard means of creating courses and enables a similar look from course to course with a secure environment for students. WebCT also has a variety of learning tools that create a virtual classroom where students and teachers can meet and communicate, thus enhancing the online learning experience.

Students enrolled in Web-based courses have access to all college services. You can receive academic advising online and get help with a situation you are having difficulty with. You can also initiate personal counseling; begin to find career/major information; or just ask general questions about RCC or our processes.

Faculty training for WebCT course development and delivery is offered via online and through seminars.⁹² Additionally, faculty rely on peer support and mentoring.

Faculty are paid \$1,500 for development and deliver of online courses. This has been funded through a grant that may be expiring shortly.

Telecourses (19 offered in fall, 2005) are regular college credit classes that, instead of lectures, use television, text, and other materials along with an RCC instructor. Mandatory orientations are scheduled for both Grants Pass and Medford. These orientations are conducted by your telecourse instructor and are crucial to your success as a telecourse student.

View, and tape, your telecourse programs on the following channels:

Ashland Fiber Network, Channel 8
Satellite systems, Channel 8
In Medford, KSYS, CHANNEL 8
In Klamath Falls, KFTS CH. 22
In Jackson County, Charter Cable Channel 33
In Grants Pass, Charter Cable Channel 8 and KSYS, Channel 8

Viewing times are the same as listed for each class. Programs are aired on a weekly basis in both Jackson and Josephine counties. See the class listing for more detailed information. Videotapes of all programs are available.

High School Outreach⁹³

OPPORTUNITIES at Rogue Community College (RCC) for High School Students! Here are some things you can do if you are **STILL IN HIGH SCHOOL**:

- Earn COLLEGE CREDIT for some of your high school classes at a GREATLY reduced price. Check out RCC 2+2 EARLY COLLEGE CREDIT
- Find out if you are ready for college in reading, math & writing by taking the free RCC PLACEMENT TEST
- Make up classes through HIGH SCHOOL CREDIT MAKE-UP
- You can get GED PREPARATION before you take the tests
- DRIVER EDUCATION is available on our Business & Workforce Training page on the left side under “Workforce Training”

RCC works in collaboration with Southern Oregon University (SOU) on opportunities for high school students. Earn COLLEGE CREDIT through SOU’s Advanced Southern Credit program and to help you make a SMOOTH TRANSITION TO Rogue Community College:

- Find out cool benefits to RCC's Student Government (ASRCC)
- New Student Registration and Admission
- Scholarship Information
- How to get your RCC TRANSCRIPT under "Student Info"
- Did you know that if you graduate from Jackson or Josephine County, you have earned 6 free credits?

Tuition and Fees

In-state

A student may register as an in-state student and pay \$59 per credit--must be a resident of Oregon for at least 90 days prior to the first day of the term.

Out of state

Out of state residents pay \$71 per credit. Residents of Washington, Idaho, California, and Nevada pay an in-state tuition rate of \$59.

International \$191.

Fees

Fees include: a technology fee of \$4 per non-credit class and \$4 per credit for credit classes. College services fee \$10 for 0 credits, \$30 for 1-5 credits, \$50 for 6 or more credits. Distributed Learning: \$10 for 1 credit, \$20 for 2 credits, \$25 for 3 or more credits. Late payment \$25. Basic skills \$17.

Southwestern Oregon CC⁹⁴

SOCC offers 85 online courses this fall.⁹⁵ 28 from Chemeketa (\$156 to \$448) and 5 from RCC (\$0 to \$334). SOCC tuition runs from \$0 - \$240 with fees (fee 1) of \$0 - \$302 and (fee 2) \$0 - \$36.

You can take courses through other community colleges. Each college has a different process and system for its online courses.

Chemeketa C.C.
 Clackamas C. C.
 Columbia Gorge C. C.
 Linn-Benton C. C.
 Mt. Hood C.C.
 Oregon Coast C.C.
 Rogue C.C.

Clicking on the following graphic/link to take the WebCT SOCC offerings:



Students leave the SOCC Web site and see a new URL where they actually login to the course (http://courses6.webct.com/webct/public/show_courses.pl).

The WebCT course list shows 8 institutions hosted under version 4.1 with none listed under version 6 (http://courses6.webct.com/webct/public/show_courses.pl). Per their representatives the host somewhere around 100 schools.

Moodle is the delivery platform for blended courses. None appear to be listed in the fall offerings.

ElementK Learn It Online⁹⁶

Southwestern offers online training courses for continuing education through ElementK Learn It Online. A pioneer in technology training and a leader in technology texts, Element K has been developing technology training for more than 20 years. This heritage has provided us with a unique understanding how adults learn. In fact, Element K is still the only company to offer a learning methodology based on experience with real students. This experience led to the development of instructional design techniques that set the benchmark for e-learning. It provides benefits like personalized learning paths, virtual labs, round-the-clock support, and an extensive online reference library that students really appreciate. People learn differently, so ElementK created an e-Learning solution to address different styles, paces, and preferences.

ElementK Learn It Online Courses Available Through Southwestern:

- Desktop Applications - \$39.00 each
- Web Design & Media - \$55.00 each
- Programming & Web Development - \$99.00 each
- Project Management - \$79.00 each
- Security - \$99.00 each
- Telephony - \$99.00 each
- Business - Finance/Human Resources/Leadership & Management - \$69.00 each
- Business- Personal Development/Sales & Customer Service/Workplace Safety - \$69.00 each

Faculty are paid a stipend of \$600 to develop a course and then \$300 for subsequent course delivery.

SOCC runs a sophisticated IT deployment. Core hardware and software include: HP-UX 11i, Unidata 6.0, Envision 4.71, Colleague R17, WebAdvisor 2.17/DMI 3.3, Dell blade servers and MS-Server software.

boundaries and technological limitations. They desire to foster a learning culture that empowers students to pursue education in ways that are in harmony with the realities of their lives.

Goals:

- To embrace the national trend of distance learning by providing high quality online, video courses, or other appropriate mediums.
- To ensure that students taking advantage of our distance delivered courses experience a consistent, high quality, and sustainable product.
- To be able to measure the success of our distance programs consistent with assessment and outcome strategies used by the college as a whole.
- To strengthen and enlarge enrollments.

The online course platform is Blackboard. As of August 15, 2005 the fall schedule has yet to be posted. As such, no number for course offerings is available. No IPV classes listed in the spring schedule.

Umpqua Community College⁹⁸

The distance education courses listed originate from other community colleges within Oregon and through a cooperative agreement, are "hosted" by UCC.

75 courses offered with Chemeketa as the primary host. 7 courses through UCC use Moodle.⁹⁹ SOCC provides 2 courses (Medical Terminology).

Currently negotiating with Angel for their course management system platform.¹⁰⁰

Southwest Oregon University Center¹⁰¹

For many residents of the South Coast, obtaining a degree from one of Oregon's universities has been a costly process requiring a move to a university. Through a collaborative venture between the Oregon University System and Southwestern Oregon Community College, the University Center coordinates and brokers courses and programs from Oregon's universities.

Residents of communities along the southwest coast can take courses and complete undergraduate and graduate degrees at Southwestern, or its satellite campuses, or through study at home. Course delivery methods include on-site instruction, interactive television courses, web based or Internet courses, and other technologies.

In order to promote the goal of increasing the access of all Oregonians to higher education, the Oregon University System (OUS) and Southwestern Oregon Community College have worked collaboratively to establish a University Center on the South Coast. The Center, located on the third floor of Tioga Hall on the Southwestern campus, assumes responsibility for the coordination of the distance delivery services currently being offered by OUS in the Southwestern Oregon Community College district, and works with the local community in

assessing needs for future services. The Center provides residents of the southern Oregon coast with access to a variety of upper division, Baccalaureate and graduate program offerings. Programs of Study currently available include:

Education

- BA/BS in Multidisciplinary Studies with Initial Teaching Licensure - Eastern Oregon University
- M.Ed - Education Continuing Licensure - Southern Oregon University
- MS - Elementary Education Continuing Licensure - Eastern Oregon University
- MS - Elementary Education Initial Licensure - Oregon State University
- MS – Special Education – Western Oregon University
- M.A.T. – Secondary Education – Western Oregon University
- Doctor of Education (Ed.D.) Degree in Education with a Concentration in Community College Leadership - Oregon State University

Marine Biology

- MS - Marine Biology - University of Oregon - Oregon Institute of Marine Biology

Information Technology

- Computer Information Systems Certificate - Linfield College
- Applied Information Management (AIM) Master's Degree Program - University of Oregon

Liberal Studies

- BA/BS - Liberal Studies - Eastern Oregon University
- BA/BS - Physical Education and Health - Eastern Oregon University
- BA/BS - Liberal Studies - Oregon State University
- BS - Environmental Sciences - Oregon State University
- BS - Natural Resources - Oregon State University
- BS - General Agriculture - Oregon State University
- BA/BS - Social and Behavioral Sciences - Linfield College
- BA - Arts & Humanities - Linfield College
- BA/BS - Philosophy, Economics, and Political Science - Eastern Oregon University

Nursing and Health Care Fields

- RN/BS Online - OHSU School of Nursing (at Southern Oregon University)
- MS - Public Health - Oregon State University
- BS - Radiologic Science

- BS - Vascular Technology
- BS - Echocardiography
- BS - Dental Hygiene

Business

- BA/BS - Business Economics or Business Administration - Eastern Oregon University
- BA/BS - Accounting - Linfield College
- BA/BS - Business Information Systems - Linfield College
- BA/BS - International Business - Linfield College
- BA/BS - Management - Linfield College
- MBA - Master of Business Administration - Portland State University
- Accounting Certificate - Linfield College
- Human Resource Management Certificate - Linfield College
- Marketing Certificate - Linfield College

Fire Services Administration

- BA/BS - Fire Services Administration - Eastern Oregon University

Criminology

- Minor - Southern Oregon University

Course offerings are delivered through correspondence, online, IPV and on the SOCC campus.

ESD's and School Districts

This section contains a survey of a number of ESD's and school districts.

Note: For details of all K-12 connectivity please refer to Appendix 7 – South Coast K-12 Connectivity. Additionally, the fall 2005 course offerings for the community colleges listed in this section can be found on the CD accompanying this document. Or go to the endnotes and click on the active link to the CC.

Coos Bay School District¹⁰²

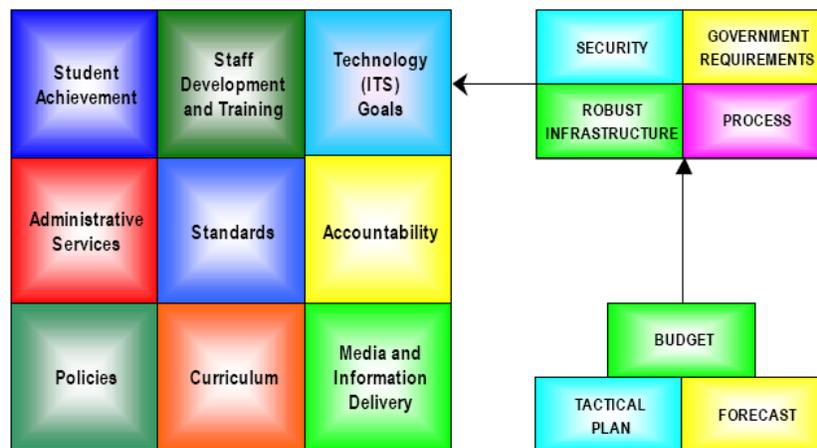
Coos Bay School District demonstrates a high awareness of the use of technology in education and the requisite level of planning necessary to make it all work. In 1996, Coos Bay Public Schools developed a plan for the use of technology in administration and instruction. A goal of the School Board, the impact of Oregon State performance standards, expected reductions in state revenue, and good business practice require that the plan be reviewed and revised. The revised plan also provides more focus on the integration of technology into the curriculum and incorporates changes in technology that will enhance both the administrative and instructional uses of technology.

The plan has been reviewed by focus groups that included administrators, teachers, parents, community members, and business representatives.

Functions served by this plan are:

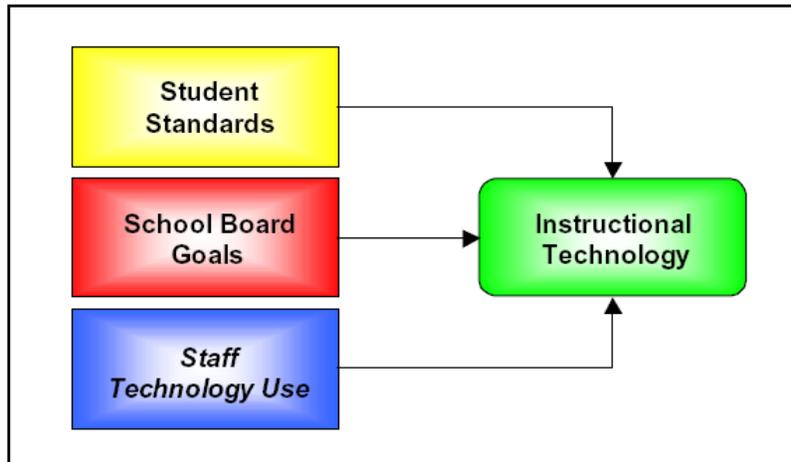
- To provide a roadmap to achieve instructional technology objectives.
- To provide alignment to federal, state, and local technology standards.
- To provide district staff with guidance as to direction: goals, priorities, and resource requirements.
- To support the budget process by defining district resources requirements that meet short and long-range technology objectives.
- To provide an overview of technology accomplishments and goals and an understanding of the technology requirements needed to support education.

The Technology Plan is comprised of nine different elements (Policies, Accountability, etc.). Some of the elements are fundamental management concerns of the district, while others are driven by changes in government regulation, funding, and/or technology.



Instructional Technology Vision

The students and staff of Coos Bay Public Schools will embrace the use of instructional technology and use it as a part of their everyday work in the school setting. Technology will be used to improve student comprehension, participation and performance.



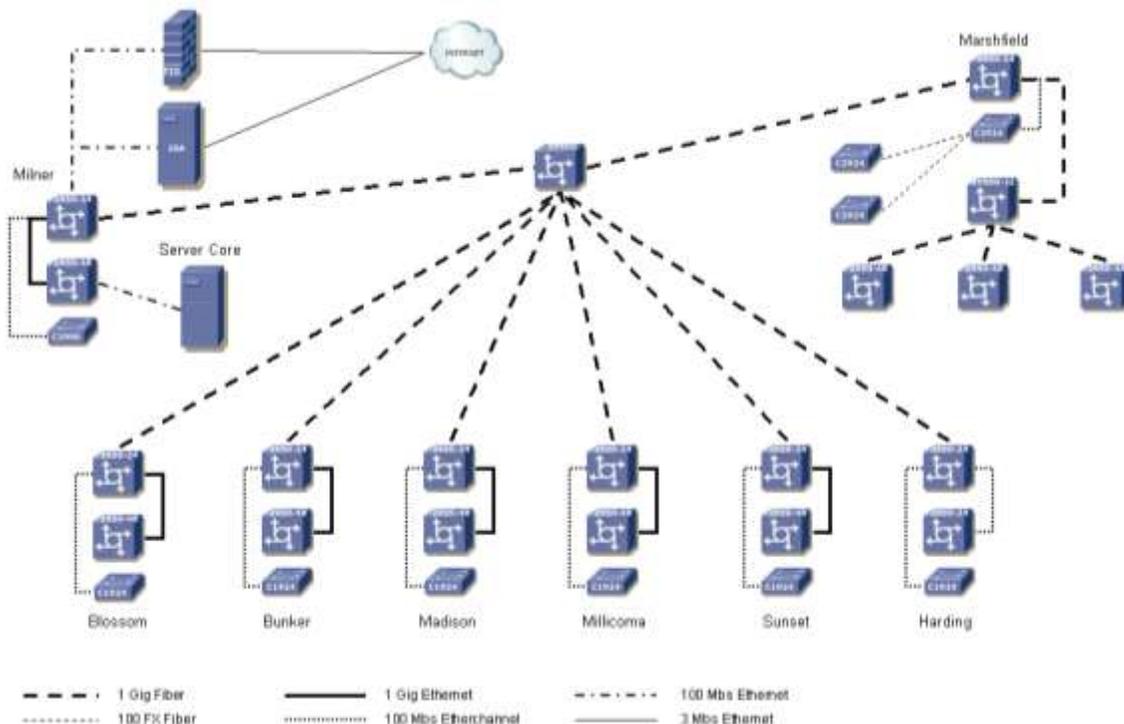
To meet the School Board’s goal of high standards, and continuous improvement for all students, students from grades K-12 will use technology to achieve learning goals. Through the use of various forms of technology, students will gain practical experience with the following tools:

- Word processors, used in class and the field, to communicate their ideas through written word.
- Spreadsheets and databases for organizing, publishing, and analyzing data gathered in the field.
- Multimedia presentations for sharing reports, data, stories and enhancing presentation and speaking work samples in all content areas.
- Technology-based research resources (e.g. Search Engines, Online Databases)
- Electronic communications (e.g. Internet, E-Mail, Distance Education)
- Task-specific technology (e.g. Global Positioning Systems, Graphing Calculators, Digital Probes)

Educational staff will continue to develop their technical skills and to use informational and instructional technology for:

- Seamless integration of technology into curriculum to support teaching and learning for all students.
- Communication with students, parents, staff, and community partners in education.
- Modeling the proper use of technology for students, staff and community.

Coos Bay School district Network Diagram.¹⁰³



CBSD provides some wireless networking. They have an online catalog out of which teachers can request hardware and software.¹⁰⁴ A four-year PC replacement plan is in place and documented.

Douglas County Educational School District¹⁰⁵

Network Services is the backbone of the Intranet and Internet connectivity for the school districts of Douglas County, excluding Reedsport. They offer support to the K-12 schools and other public and private agencies. Network Services offers support on network analysis, trouble shooting (hardware, software), installation, training and tech support to any agency requesting it.

The Douglas ESD maintains a Computer Lab with both PC and Mac computers and 12 workstations for training. This lab is available to anyone wanting to conduct training for their school students, teachers or company employees or individuals wishing to use it for schooling on computer usage and programs.

The Douglas ESD Network Services is the contact for Interactive Video Conferencing. Outside agencies other than school districts are also welcome.

DESD presents a Web page for DougNet, but it contains out of date information and a number of broken links.

North Bend School District

NBSD demonstrates forward thinking in their use educational technology. Among their recent accomplishments is the building of the new North Bend Technology Center. This state of the art facility is well designed to provide usage of technology with minimal staff. The staff room is fully windowed and centrally located such that one staff person can effectively monitor all of the technology rooms, save one. It is reminiscent of the architectural approach to laying out nursing stations in a modern hospital setting. The usage is one of “heavy” online classwork.

IPV is not used nor are there any plans for its use at this time. But it is available.

Oregon Coast Technology School is the shared vision of many people in the North Bend School District. Teams of educators in the District began working together writing grants in 1994. Along the way, the question was asked, "What can we do better to help kids get a quality education in North Bend?" Voters in North Bend passed a bond levy for schools. Out of bond levy funds came a new technology building and District personnel began the process of finding money sources to support more technology curriculum. A team of District staff wrote and applied for a charter school grant for a "school within a school." Thus, Oregon Coast Technology School was born.

ORCO TECH is a vision for the future: "Educate students for their world, not ours." Information technology (IT) can be used to enhance lifelong learning for students in positive and meaningful ways. ORCO TECH's vision allows students the opportunity for change and adaptability giving them the ability to connect to personal goals. Educating students at ORCO TECH, information technology fluency requires "...three kinds of interdependent knowledge that must be taught in concert: Skills, concepts, and capabilities. Skills are necessary for job preparedness, productivity, and other aspects of fluency...concepts explain how and why information technology works. Capabilities, essential for problem solving, include managing complex systems as well as testing solutions."

Creativity, Innovation, Flexibility: The ORCO TECH vision is to prepare students to use technology in all aspects of their leaning. Partnerships with member of the community (business, volunteer, senior citizens, public sector), parents, staff, students and the local community college are being formed to design, implement and manage all facets of the magnet school. Integrating technology into all classroom curricula: implementing self-directed learning strategies for students; emphasizing reading and writing from a math/science/technical perspective: and encouraging research-based, best-practice teaching methods, (example Cisco Academy, Oracle Academy) are some of the innovative educational approaches that will be used.

South Coast ESD¹⁰⁶

The mission of the Technology Services Department of the South Coast Education Service District (SCESD) is to provide quality services in a timely manner that will benefit both the customer and SCESD.

The Technology Services Department is a "pay as you go" service. This means they operate as a business; however, without profit from the services. The "profit" is put back into the program to provide quality, cost-effective service. The services are available to any school districts, public agency or non-profit organization.

Some of the services provided include:

- Network configuration
- Network installation
- Novell and Windows NT server administration
- Novell and Windows NT software installation and configuration
- Preventive maintenance cleaning
- Apple/Mac Repair
- PC and Mac installation, both network and stand-alone
- Installation and configuration of server and desktop software
- PC and Mac troubleshooting and repair
- Network printer and local printer installation
- Printer repair and cleaning

Pooled purchases through the Organization for Educational Technology and Curriculum (OETC)¹⁰⁷ provides lowest-cost purchasing programs, professional development, and influence dedicated to the integration of technology in education.

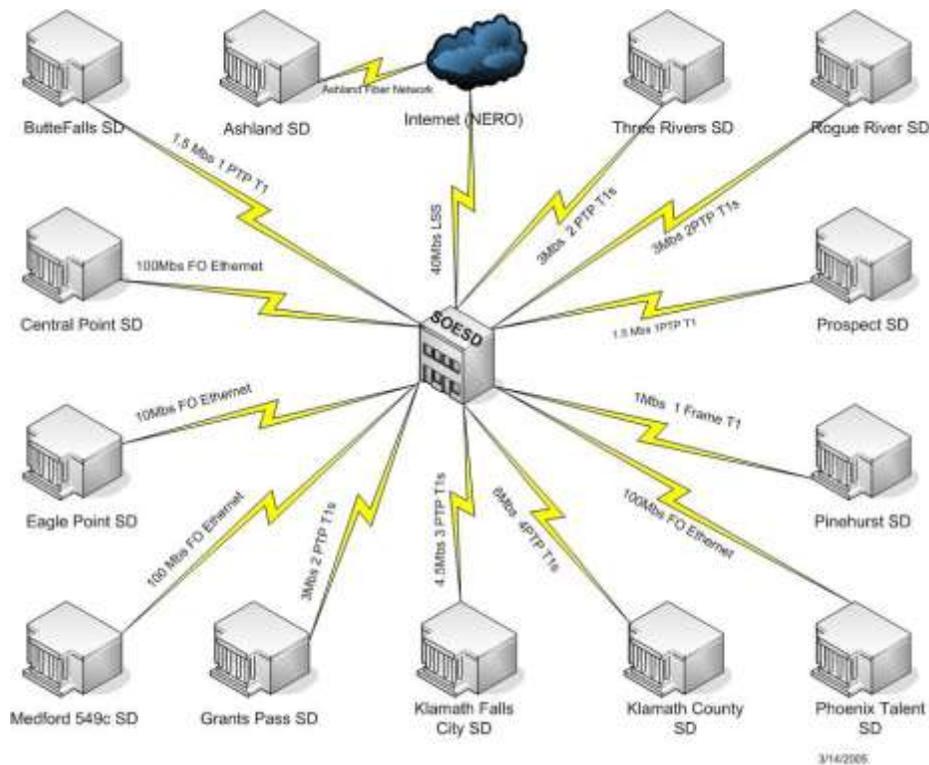
Southern Oregon Educational School District¹⁰⁸

The SOESD is touted by many as the premiere ESD in the state. Cited are its technology competency and organization, scope of services and degree of collaboration within the region and throughout the state.

The Distance Education program at Southern Oregon ESD is a multi-point, interactive video network that connects 23 schools within the ESD service area. The ESD network also connects with high schools, ESD's and other institutions throughout the state of Oregon.

Southern Oregon ESD serves as the "hub" for the three county regional network (Josephine, Jackson and Klamath), providing scheduling and first level trouble shooting for the videoconference sites. Additionally Southern Oregon ESD provides training for teachers interested in using the network. Numerous events are scheduled on a daily basis among various sites.

SOESD Network Diagram



Current SOESD Interactive Video Courses:

Course Title

French I, 2005/2006

Spanish I, 2005/2006

Health Occupations, 2005/2006

Spanish II, 2005/2006

Intro to Health Occupations, 2005/2006

Spanish III, 2005/2006

Calculus, 2005/2006

Accounting, 2005/2006

Geology, 2005/2006

Oregon Online¹⁰⁹

Oregon Online is an Internet-based education alternative. Whether you live in Helix, Heppner, Cave Junction, Medford, out of state, or out of the country, and you have a computer with Internet access, you may enroll in our classes. Our teachers are licensed, and our classes accredited through the Northwest Association of Accredited Schools.

Anyone with a computer or can get to a computer that has access to the Internet may sign up for classes. Libraries, schools, and community centers may allow student access to courses.

Oregon Online currently offers over 70 regular and credit retrieval courses. High school courses in Language Arts, Science, Social Studies, Math, Art, Foreign Languages, and some electives are currently available (AP and middle school courses are continually being developed). During the Fall semester students can take first semester regular education and either first or second semester credit retrieval courses. During Winter/Spring students may take first or second semester courses in both regular education and credit retrieval.

All Oregon online classes are nationally accredited and can be transferred to any high school for credit. Check with your home high school to see how they will place that credit on your transcript.

Oregon Online charges \$300 per course per semester. However, students attending schools in districts who are members of Oregon Online receive a considerable discount. Some school districts require students to pay for their own course; others require a deposit; others pay the entire cost. Contact the school district closest to you to find out the cost as well as the procedures to enroll.

Assessment Summary

The region is under intense economic pressures with an economy in decline or in “transition,” as some would put it. This transition has many possibilities associated with it. However characterized, there is a need for “jobs, jobs, jobs” and workforce education/training to provide the necessary preparation for those jobs. Several areas will grow in demand over the next decade. Most growth will be in professional/technical fields such as health care, education and social work. Sales and service jobs are also among the fastest growing. Not surprisingly, fishing and timber industry jobs will fall. Most new hires (75%) will come from replacement positions.¹¹⁰ The region has suffered economically as the resource-based industries of lumber and fishing have declined.

The demographics of the region have shifted with the economic tide. Age groups that are increasing in size are older -- over 45 -- while younger cohorts are decreasing in size. Similarly, personal income more and more is derived from dividend, interest, and rent which conforms to a retirement population. Net earnings come from a very small number of industries: local government (education, public health and tribes), lumber and wood, health services and tourism. Small businesses are the norm in the region, and work ethic is the number one workforce problem for employers. Other problems are the lack of childcare and transportation. Basic skills including literacy are a significant problem for the regional workforce.¹¹¹

During a period when community colleges have been under considerable financial pressures with results that include decreased enrollments across the state¹¹², SOCC enrollments have shown a modest rise (2003 to 2004 increase of 1%).¹¹³ Enrollments as a percentage of total county population for Coos (12.6%) and Curry (9.1%) are among the highest in the state.¹¹⁴ The ages of SOCC enrolled students in the region predominantly is in the 25 years and older range and corresponds with the definition of non-traditional students,¹¹⁵ the group that is most interested in DE. Regional residents are indeed seeking out opportunities for improving employment status.

SOCC online course offerings have grown rapidly and will need to grow more to meet regional needs. Growth in range of course offerings needs to be closely matched to demonstrated student needs. Quite likely there will need to be some unmet demand as getting too far in front of needs would create expenditures without sufficient utilization. Funding is an issue. Ongoing evaluation of student needs through surveys or other market-probing mechanisms will help to predict needs and demand levels.

Telecommunications infrastructure and advanced services are a serious bottleneck to progress for rural students in the region. Within the Coos Bay footprint and even in Brookings, access to robust and competitive broadband exists. Yet once outside of the footprints of Coos Bay and Brookings, and not all that far outside, services are extremely limited and, if available, extraordinarily expensive from a customer point of view.

Online DE delivery requires students have access to the Internet. Many students are limited to dial-up access as there is no other alternative, save to drive to a public accessible Internet-ready computer. Dial-up access results in intermittent and unpredictable interruptions. Downloads can take a very long time. The lack of ubiquitous broadband for students is a choke point for course delivery and development. Course developers are restricted in the use of multi-media as these files can create substantial time-consuming and unreliable downloads. K-12 entities use overnight downloads to reduce traffic contingencies during the school day.

Internet Protocol Videoconferencing requires a robust broadband connection to broadcast the two-way sessions. Delivery sites are limited in the region due to the lack of ubiquitous broadband access, cost of broadband, cost of equipment and cost for maintaining a learning center. IPV has a definite usefulness for a number of courses as well as for orientations and in-service programs. It is neither as popular nor as in demand by many non-traditional learners due to their needs for time and place flexibility, the significant reason many take online DE.

Verizon is the dominant telecommunication provider in the region. They provide good telephony services. It's in the arenas of route diversity and advanced telecommunications services (broadband) they come up short. Of all the providers contacted, Verizon was the only one not responding. Without direct information from Verizon on the south coast and in light of many comments as to their responsiveness for a wide variety of regional representatives, at this point we would have to color them in a negative light and suggest that they are holding back the opportunity for economic and educational development on the south coast. Other opportunities need to be explored. Charter has been particularly informative and looks forward to future discussions.

The survey and interviews undertaken on behalf of this effort revealed that in general the regional thinking is pretty much in sync with the rest of the nation. Some issues that need to be addressed did emerge. At the top of the list is the need to attend to faculty needs for training and support. Here we're not just speaking about what buttons to push but how to effectively craft and deliver an online of IPV course offering.

Another issue was one of costs, but this actually may be better viewed as a value question. This may be tied in one way or another to another theme that emerged having to do with public awareness of the availability of the offerings and of the relatively modest financial investment required. No question that many of those who seek to advance are among the more “cash strapped” in the region. There seems to be a missing element of public awareness of the availability and value of these offerings that ties to the cost observation.

Lack of high-speed Internet access to the online courses from home also emerged as a large impediment to usage of the delivery mechanism, especially for those who would pursue these offerings late at night or on weekends. In some of the more rural areas the best dial-up is still at 14.4 kbps. They also experience frequent cut-off during a dial-up session.

The lack of access to high-speed connections also means that downloads can take “forever.” Often they are cut off and must be re-started. This also means that course developers must use a “lowest common denominator” approach to designing their courses. The inability to make a course offering richer and more appealing by taking advantage of multimedia approaches to conveying information substantially restricts usefulness and power of the online delivery mechanism.

Partnerships of all sorts emerged as a way to consolidate expenses, leverage investments and to become both more effective and efficient in serving the needs of students. The interviews really brought home a strong sense that the region is truly prepared to set aside some of the history that has seemingly clouded relationships in the past. Across the region there is a dramatic turnover in K-12 superintendents in the past two years. SOCC has a new president. New port commissioners are in place. Across the region SOCC is viewed as the center of educational leadership.

Data tells us that women are taking advantage of DE at a rate that surpasses men. One wonders at this trend similarly replicated in other areas of Oregon where DE is offered.

An emerging reality, and one that presents opportunities for growth in DE by SOCC, is the rising tide of Hispanic populations in the region. Some might characterize this as a “stealth” population today. Yet the reality is that we are seeing large growth in this demographic. Families are arriving, being formed and children are entering the system. Adults will be seeking the advantages of education. SOCC needs to rise to meet this need, as among other matters it is a federal and state requirement.

One concern going forward is the split of the management resource for DE. To adequately further develop the program there needs to be dedicated and fulltime oversight. We see this in every community college (university) with a solid DE program. The needs are real and consist of development of faculty training and support, ensuring enhanced student support, ensuring DE is in synch with general student needs as well as to stay in touch with specific needs for workforce enhancement, active public interaction to educate and promote DE throughout the region, migration to a new platform and all the contingencies that involves, and other matter related to growth and sustainability in the DE program.

The region will benefit from increased access to education. Education not just geared to doing more of the same (essential), but rather that is forward-looking and creative in meeting the needs of the dramatically changing student needs in face of the pressing and changing economic realities of the region. Distance education does play a significant role today. It needs to be strengthened to meet the growing needs of students in the region. This requires a dedicated effort across a number of dimensions.

Three-year Comprehensive Distance Education Plan for Oregon's South Coast Region

Before adoption the recommendations of the consultant will require thorough review and concordance by appropriate distance education decision-makers in the south coast region.

Mission Statement (recommended)

We will broadly collaborate and cooperate to promote and use distance education on Oregon's south coast. Through our joint efforts we will develop, coordinate and support the use of human, financial and technology resources to enhance and sustain access to affordable distance education learning opportunities for students, residents and educational institution faculty and staff.

Vision Statement (recommended)

Educators, workforce development and other regional stakeholders actively and continuously collaborate and cooperate throughout the south coast to provide access to quality educational experiences for the residents of the south coast, increasing improved access to educational opportunities through the use of distance education. Collaborative efforts, including working closely with economic developers, turn the tide of the economically depressed nature of the region arising from the decline in the timber and fishing industries. New opportunities are discovered and the necessary workforce investment prepares us to meet these needs.

Expanded entrepreneurial efforts, grant writing and other revenue sources increasingly meet the growth for much needed investment capital to support expanding demands for distance education. Services and course offerings are developed and delivered in as efficient and cost effective manner as is possible to meet high quality standards.

Curriculum is constantly re-evaluated to ensure synchronicity and positive synergies with workforce needs and with student needs to advance personal knowledge. Delivery of programs is constantly monitored for quality, meeting of standards and relevance to identified needs.

Faculties are provided the necessary tools, preparation, support and financial reimbursement necessary to meet the growth in use of educational technologies. Regional collaborative efforts find opportunities for cooperation and cost savings by seeking out and sharing resources as appropriate. Siloed approaches to delivery and support will be a matter for historians to review.

The needs and support of students are first and foremost. Students are prepared for the use of educational technologies and supported in their usage of such. Educational opportunities will be

seamless from K-12 to community college to university. Financial participation is guaranteed through a combination of sliding scales, grants, loans, and reasonable fees derived through economies of scale and efficient delivery of courses.

Stakeholders from a variety of critical sectors of the economy are intimately and directly involved with the collaborative and planning processes. Openness and willingness to develop new lines of business and service opportunities and to provide mechanisms for education and financial support to meet the staffing needs of these new opportunities is viewed as critical for the future of the region.

Educational leaders constantly seek new ways to leverage technologies to improve educational delivery, ensuring that students' needs are met. Distance education avails itself of every tool reasonably available to achieve its goals.

Access to high-speed telecommunications is ubiquitous throughout the region, resulting from collaborative planning with regional telecommunications providers. Where existing providers fail to engage to resolve issues of access and affordability, other entities (healthcare, government, businesses and other vested groups) will be encouraged to join collaborative efforts to create a seamless opportunity for telecommunication access to ubiquitous learning opportunities.

Goals and Action Items (recommended)

Recommendations by the consultant need to be reviewed, absorbed and ratified (or disregarded) by the south coast region's distance education decision-makers. Recommendations employed the following priority rating and are singularly focused on DE:

- High – Critical to the immediate future of DE on the south coast and may be viewed as a foundational component required to support the projected growth of the DE programs in the region. Likely to have synergistic implications education and/or workforce development on the south coast. Some of these may not be reasonably anticipated for completion during the three-year timeframe. There is a sense of urgency in commencing these activities.
- Medium – Very important to the future of the DE program with the likelihood some of the elements already in place. Likely to be viewed as enhancing of the current offerings.
- Low – More than a “nice to have.” These components would definitely enhance the DE program. Yet other of the recommendations would seem to be more critical within the three-year timeframe.

Goal 1 – Meet south coast regional distance education needs

Action Item 1.1 – Collaborate and support healthcare education for nurses

Priority: High

Estimated Investment: Requires additional analysis. Contact the SOCC Nursing Department for details

Nursing

This action item is already in progress and deserves full support and cooperation to achieve the goals. In particular ensure solid support for placing the core nursing didactic online and for providing IPV resources and locations to serve rural and distant students with distributed teaching. Use of simulation manikins and associated modalities for training nurses could include distance strategies utilizing telecommunications-based solutions.

The Community College Healthcare Action Plan is a three-to-five year healthcare initiative coordinating the statewide efforts of Oregon's 17 community colleges as they develop nursing and healthcare occupation education capacity-building *collaborations* and *partnerships* among community colleges, with healthcare providers, four-year public and private colleges and universities, and communities across Oregon. Background on the issue and proposed solutions are discussed in the Community Healthcare Action Plan.¹¹⁶

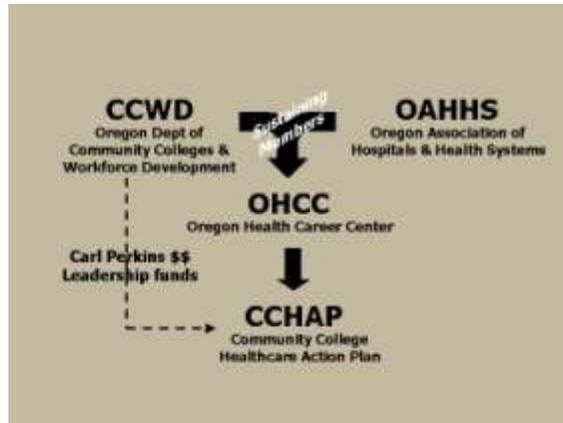
“Oregon has a serious shortage of trained healthcare personnel in several key areas. Needs related to education and training have been discussed over a period of 2-3 years in a variety of venues through out the community colleges and healthcare industry.

In spring of 2002, the Department of Community Colleges and Workforce Development (CCWD) issued a report, *Health Education and Training: What Community Colleges Can Do*, that provided an orientation for individuals and groups concerned with the crisis. It identified problems in recruitment and retention, workplace conditions, regulatory issues, but primarily focused on the fact that the capacity of our healthcare education programs could not meet the current nor projected demand.

By Spring 2002, the Oregon Workforce Investment Board (OWIB) through the Governor's Office of Education and Workforce Policy had investigated the crisis and compiled its Preliminary Report on its Healthcare Employment Initiative entitled *Health Care Sector Employment Initiative: Taking "AIMM" at a Growing Crisis*. Concurrently, the Legislative Interim Task Force on Healthcare had also reviewed the shortages in the healthcare employment sector and issued its recommendations to the incoming legislature and governor.

Finally, in a commitment to work with industry partners to support and resource new and re-packaged programs and faculty, the Oregon Department of Community College and Workforce Development (CCWD) and the Oregon Association of Hospitals and Health Systems (OAHHS) became sustaining members of the Oregon Health Career Center (OHCC). This partnership brings industry and education together to find solutions and funding to expand capacity of and access to healthcare education.

OHCC is tasked with bringing the Community College Healthcare Action Plan (CCHAP) strategy to fruition.”



Oregon, a rural and frontier state, needs to produce at least twice its current annual level of Registered Nurse (RN) graduates to solve its acute and growing nursing shortage. Combining technological applications in support of classroom and clinical education can make the best use of limited faculty, financial, and clinical placement resources.

Major barriers to doubling nursing education enrollment statewide include:

- (1) Insufficient numbers of available faculty.
- (2) Budget limitations.
- (3) Limited access to live-patient clinical placements.
- (4) Inconsistency and unpredictability of student clinical learning experiences in live clinical settings.

The Governor’s Healthcare Workforce Initiative recognizes that a range of resources, tools and approaches need to be brought together as seen in the following graphic.¹¹⁷ New Educational Delivery Systems are included in the mix. Distance Education is included in that category.



Combining technological applications in support of classroom and clinical education can reduce these barriers and increase efficiency, thus expanding educational capacity while conserving scarce financial resources.

The consequences of insufficient numbers of faculty can be addressed through the sharing of teaching resources across Oregon's public, private and community-college nursing programs. This can be achieved through comprehensive integration of all campuses using distance-learning technologies to broadcast nursing education statewide. Oregon's nursing education community has demonstrated a commitment to solve the shortage together. Distance technology can be used to facilitate statewide teaching and sharing the delivery of nursing learning resources.

Advances in simulation and virtual technology now offer excellent adjuncts to "live" clinical education, reducing the barriers associated with limited experiences, limited clinical sites, and limited clinical faculty resources. Technology provides efficient, safe, and effective alternatives to expand clinical teaching opportunities. Access to central and regional clinical labs and simulation resources can provide even greater mobility for students across educational systems. By making appropriate use of these technologies, and through cooperation across programs, doubling RN production to meet Oregon's health care needs is achievable.¹¹⁸

In a December 2003 study conducted by the Oregon Center for Nursing,¹¹⁹ SOCC was identified as having the following program needs for expanding nursing education capacity:

- Faculty Development
- Faculty release time
- On-site Tech support: faculty/students
- Comprehensive scenarios for clinical evaluation

The first three needs appear to remain and are identified through the survey conducted as well as in the interview process as a shared need across all programs at SOCC. The SOCC nursing program continues to experience student capacity limitations. It is open to the idea of expanding capacity in an effort to meet the need for entry-level nurses in the central and southwestern Oregon coastal region. The SOCC nursing program has a well-established relationship with Bay Area Hospital in Coos Bay, which manages the SOCC clinical training program for student nurses.¹²⁰

Several projects appear to be underway at this time. One is the "Oregon Consortium for Nursing Education (OCNE): Increasing Capacity to Both Educate and Better Prepare Nurses, Chris A. Tanner, Principal Investigator" *Project Description*: This project will increase capacity to both educate and better prepare nurses through a new curriculum for the Oregon Consortium for Nursing Education. The purpose of this proposal is to meet Oregon's nursing care needs by doubling enrollment of entry-level nursing students in nursing schools statewide by 2008 -- while simultaneously increasing the breadth, depth and quality of nursing education in Oregon. Dates of Project: 7/22/2004 – 9/30/2005. Funded by: Northwest Health Foundation through a subcontract from Umpqua Community College.¹²¹

Another was enacted through legislation. House Bill 2354 (Oregon Legislative Session of 2003) directs Chemeketa Community College to implement pilot project to develop satellite nursing education program in rural coastal communities. Appropriates moneys from General Fund to Department of Community Colleges and Workforce Development for pilot project. Sunsets December 31, 2007.¹²² The Chemeketa nursing program description can be found online at <http://www.chemeketa.edu/exploring/areas/programs/nursing.html>.

Joanna Blount Ed.D, SOCC Associate Dean of Collegiate and Professional Technical Education reports that plans are in underway to place the first year of the nursing didactic online.¹²³ Challenges presented by the inadequacy of infrastructure to reach outlying communities need to be overcome. So, too, are a shortage technical expertise to support faculty and students. A third challenge resides in the area of finding qualified faculty, willing to work for the salaries available and who are qualified to train using DE approaches.

It's worth noting that the SOCC program is spoken of with the highest regard in the region and in neighboring regions. It's also worth an additional note that employment for nurses is in demand, projected to continue in demand and that the average salary is nearly double that of projected annual salaries for regional occupations.

Action Item 1.2 – Develop and support allied healthcare education programs

Priority: High

Estimated Investment: Requires additional analysis

While not all components of certification and degrees can be delivered online, many core didactic components are suitably delivered. As with the nursing program IPV can play a significant role, especially for those at a distance from the teacher.

The Commission on Accreditation of Allied Health Programs shows SOCC with an “Initial Accreditation” status.¹²⁴ Today SOCC offers certification in the following: Pharmacy Technician, Emergency Medical Technician, Rural Health Aide, Medical Clerical, Medical Transcription, and Surgical Technology.¹²⁵

Among additional degree and certification areas to consider are Registered Dental Assistant, Medical Laboratory Technician, Respiratory Therapist, and Phlebotomist.

Demographic growth of aging populations on the south coast region indicates these are growing opportunities for employment on the south coast. The U.S. Department of Labor projects the healthcare industry to undergo the largest growth of any other industry, with an estimated 4 million new jobs by 2012. The increasing demand for healthcare affects the need for well-trained and credentialed employees in a variety of healthcare professions.

The term “allied health” is used to identify a cluster of health professions and covers as many as 100 occupational titles, exclusive of physicians, nurses, and a handful of others. Allied Healthcare jobs include cardiovascular technologists and technicians, dental hygienists, diagnostic medical sonographers, opticians, and radiologic technologists and technicians. There

are about two million people are employed as allied health professionals in the United States. Certain market trends, including a decrease in primary care physicians and cost control in the health care industry, are making this a good field to enter.

The opportunity to partner and share online components of programs with other community colleges and universities in the state needs to be pursued (e.g., OIT and Respiratory Therapist or PCC and Medical Laboratory Technician).

Action Item 1.3 – Identify and expand DE business course offerings

Priority: High

Estimated Investment: Requires additional analysis

Evaluate expansion of online business course offerings and certification programs. This would provide additional opportunities for those already employed to gain additional skills useful for career progression. Work with the Small Business Development Center¹²⁶ to coordinate offerings and other area workforce entities.

SOCC offers entry-level business courses online. Evaluate expanding the online offerings to include additional and more advanced topics, especially suited for those already working in the field or who might own a small business. These topics might include:

- e-Commerce (!!!)
- Starting and Managing Your Own Business
- Managing the Digital Enterprise
- Business Plan Development
- Leadership Skills
- Financial Planning
- Growth Strategies
- Marketing: Branding, Target Markets, Campaign Development, Advertising and Promotion
- Strategic Planning
- Contracts and Subcontracts and government contracting
- Grant writing for not for profits

Currently certificate programs for business include:

- Accounting
- Bookkeeping Clerical
- Office Administration/Office Occupations

With the growing aging population there will be an increased need for qualified financial consultants. Financial planning courses leading to certification as a Registered Financial Consultant might include: Fundamentals of Personal Financial Planning, Insurance and Employment Benefits, Investment Planning, Income Tax Planning, Planning for Retirement and Estate Planning.

The growth in retail employees means there will be a need for human resource managers. A certificate program might include online offerings in Disciplining and Terminating Employees, Hiring and Orientation, Conducting Proper Reference and Background Checks, Introduction to Essential HR Practices, Pre-Employment Screening, Wage and Hour Regulations and Evaluating and Selecting Benefits Programs.

Action Item 1.4 – Identify and expand DE course offerings in support of the trades

Priority: High

Estimated Investment: Requires additional analysis

Explore offering online courses in support of the trades as this already is an area of need for the region. Work with the Small Business Development Center to coordinate offerings and other area workforce entities. The heady growth in seniors and other factors (per workforce development and employment departments) strongly suggests that there will be an expanded need for competently prepared workforce in these categories:

SOCC already offers certificates in these categories:

Computers & Technology:

- Computer Technician
- Network Technician
- Software Application Specialist
- Web Production Specialist

Manufacturing Technology:

- Fabrication/Welding

Evaluate expanding online support for these areas of growing employment opportunities:

- Advanced Electronics Technology (Avionics)
- Air Conditioning, Heating and Refrigeration & Major Appliance Service Technology
- Aircraft Mechanic
- Applied Service Management
- Auto Parts & Warehousing
- Building Construction Technician
- Building Maintenance and Management
- Carpentry
- CDL Training (Commercial Truck Driving)
- Certified Automotive Technician
- Certified Truck & Diesel Technician
- Commercial and Residential Heating, Ventilation, & Air Conditioning (HVAC)
- Construction - Home Remodeling and Repair

Electrician
 Electronic Systems Technician
 Locksmith Training
 Marine & Watercraft Mechanic
 Maritime Education
 Motorcycle Technician
 Plumbing Technology
 Small Engine Repair
 Transport Refrigeration & Air Conditioning
 Yacht & Marine Design

Work with other regions to build partnerships for use of SOCC authored and owned online courses in support of technology degrees or certificates. This would also seem an area to work with high schools to develop vocational training programs with a seamless move to associate degrees or certifications.

Goal 2 – Support improved teaching and learning processes

Action Item 2.1 – Host WebCT version 4 with DAS

Priority: High

Estimated Investment: \$13,200 (1 year) or \$39,600 (3 years)

SOCC currently runs WebCt version 4 in a WebCt hosting environment. Evaluation of alternatives strongly suggests re-hosting with Oregon’s Department of Administrative Services (DAS). This move would save SOCC funds that could then be redirected toward preparation for migration to WebCT version 6.0, discussed in Action Item 2.3.

The current contract agreement with WebCT expires on December 31, 2005. Moving from WebCT computers to DAS is described by representatives of WebCT¹²⁷ and DAS¹²⁸ as being very straightforward and possibly accomplished within a matter of hours.

Comparison of investment under 3 alternatives was developed by Kat Flores, SOCC IT, and confirmed in interviews and via a document received from WebCT.¹²⁹ The alternatives evaluated included retaining the current arrangement and extending for another year, hosting at SOCC and hosting at DAS.

	WebCT	DAS	SOCC	SOCC 2 nd Year
Hardware	0	0	37,500	7,500
Software License	7,500	7,500	7,500	7,500
Hosting Cost CE4	14,000	5,700	0	0
Administrator Salary 1 FTE	0	0	57,000	57,000
Total	21,500	13,200	102,000	72,000
Total Invested After 3 years	\$64,500	\$39,600		\$246,000

Note the much higher expenditure to host at SOCC, especially for the first year when new equipment and personnel would be required. Another factor to consider is the diversion of IT staff from other critical IT plans (see Action Item 2.4 – Support proposed strategies plan for SOCC IT) improvements to accommodate the hosting at SOCC. This “opportunity cost” needs to be strongly considered when evaluating planning alternatives.

Discussion¹³⁰ with John Sneed, Director DE at PCC reveals a very high level of satisfaction with the DAS hosting, both from a cost and support point of view. He indicated his IT department is also a big supporter as it’s one less thing for them to do and they couldn’t deliver the same level of service at the price point. Columbia Gorge also hosts WebCT with DAS.

Further in-depth discussion with DAS clearly demonstrated an excellent level of understanding of required system administration and support to the colleges.

Another factor to consider is the number of node hops required to traverse the public Internet to reach the current hosting location. Node hops are the number of Internet connection points that have to be moved through to reach a destination and return. Moving the hosting location to Oregon has the potential to reduce the number of node hops resulting in a small or large savings in response time. The actual timesavings may be negligible but might be a perceivable factor, especially for those rural users with dial-up connections. A tracert comparison could help resolve whether or not this would have any perceivable impact.

The migration to version 6 was also discussed with all of the parties. At this time only 3 WebCT customers have it deployed as a pilot. The product was just released for three weeks ago as of this writing. The MS-SQL database version won’t be out until sometime in September...maybe.

Given the newness of version 6 of this product and the big changes in how the tools work with the many new features, SOCC is strongly advised NOT to move toward version 6 until the product has been out for at least a year.

In the meantime save some money by hosting with DAS and invest the savings toward migration to version 6 next year. Plan for at least 10hours of accrued time by SOCC IT staff to plan and support the hosting move.

Action Item 2.2 – Develop a migration plan to WebCT version 6.0

Priority: High

Estimated Investment: \$47,400 (2 years), \$70,000 (3 years)

Note: year 1 is DAS hosting of CE v 4 (see above). The 2 years for CE v 6 would start at the end of this period.

WebCT is the current application platform for DE. Blackboard is another option. However, significant learning, experience and comfort with the WebCT product suggests continuing with

the platform but to start now with the planning necessary for a relatively pain-free migration to version 6.

Any examination of the costs of migration to holding at the current product version needs to take into consideration that support for version 4.0 will start to lag at some point as WebCT is focusing on supporting the new product. Also, it appears that the new version will contain features and functionality conducive to a quality online DE experience for students and teachers.

A detailed migration plan needs to be developed. The DAS hosting option is highly favored and has potential for additional outcomes beyond cost-savings. See Action Item 4.2 - Intra-regional partnerships for more on this topic.

The initial release of WebCT Campus Edition 6 occurred in July 2005. The initial release runs on the Oracle database. The target release date for WebCT Campus Edition 6 on Microsoft SQL Server will be coming soon (September).

WebCT version 6 is a new product. It contains some elements from the legacy product line version 4.0. 4.0 grew out of early development by a professor at the University of British Columbia and has been upgraded and patched many times. About 5 years ago WebCT started planning their move from the legacy platform and launched a second product line, WebCT Vista. Included in this new line was use of things line relational databases, object oriented programming and other technical features. It was targeted to larger customers demanding additional more advanced functionality.

The assessment by the WebCT representatives is that WebCT version 6 is much to large for SOCC's institutional requirements. They recommend WebCT Campus Edition (CE) version 6, a scaled down version of the Vista product line. It is a full version of Vista with the enterprise functionality turned off. It has much of the look and feel of version 4 but with a substantial number of additional features. As it is a full implementation of the Vista line but with features disabled, at the time when and if SOCC ever decided to upgrade that could be readily accommodated with the appropriate software key.

A 9 to 12 month planning horizon is recommended for the migration. This is necessary to accommodate training of faculty in the technical aspects of using the tools as well as to understand how to effectively develop courses using the new product features. In the event that SOCC elected to host the product time would also be required to bring a new system administrator on board, train that person, acquire hardware and licenses and to address any other technical details of such a migration. A parallel pilot period of running the systems side by side is also highly recommended. A utility is provided to migrate content from version 4 to 6. A review and touch up of courses is likely to be required.

Three pilot schools have been running the application since April. The first migration to the new version is scheduled to begin in January with others to follow.

Pricing is moving from a "seats" basis to one of "number of users."

WebCT Campus Edition 6 will run on an application server, BEA WebLogic, and on a choice of relational databases: Microsoft SQL Server or Oracle. The most cost-effective method for deploying WebCT Campus Edition 6 will be a two-server configuration on Microsoft Windows, Red Hat Linux, or Sun SPARC Solaris, with one server dedicated to the application and another to the database.

The following reference configurations are minimum requirements for deployments with up to 15,000 students, supporting up to 500 concurrent sessions and 1,000 courses. Discussion with the WebCT account executive provided some clarification of posted requirements but a more detailed discussion will need to occur with technical staff.

Intel server configuration for a Windows OS¹³¹ (SOCC is a Windows shop):

APPLICATION SERVER HARDWARE

- Processors: 2 x 3.0 GHz Intel Xeon Processors or equivalent/better
- RAM: 4 GB RAM
- Storage: 73 Gb Logical Storage (RAID1); 10,000 RPM SCSI drives or better
- Software: Microsoft Windows 2003 (SP1)

DATABASE SERVER HARDWARE

- Processors: 2 x 3.0 GHz Intel Xeon Processors or equivalent/better
- RAM: 4 GB RAM
- OS & Application Storage: 73 Gb Logical Storage (RAID1); 10,000 RPM SCSI drives or better
- Database Storage: At least 146 Gb Logical Storage* (RAID10); 10,000 RPM SCSI drives or better
- Software: Microsoft Windows 2003 (SP1) and Microsoft SQL Server 2000 SP3 (Standard or Enterprise Edition)

The BEA WebLogic application server is included in the WebCT Campus Edition license price. The cost of the database license is not – Microsoft SQL Server or Oracle.

Comparison of investment under 3 alternatives was developed by Kat Flores, SOCC IT, and confirmed in interviews and via a document received from WebCT. The alternatives evaluated included retaining the current arrangement and extending for another year, hosting at SOCC and hosting at DAS. After the matrix we've also included some suggestions for preparing SOCC faculty and others for the migration.

	WebCT Hosting Year One	WebCT Hosting After Year One	DAS Hosting with Migration	DAS Hosting	SOCC Hosting Year One	SOCC Hosting after One Year
Hardware	0	0	0	0	37,500	7,500
Software License	9,500	9,500	9,500	9,500	9,500	9,500
Hosting Cost CE6	15,000	15,000	10,000	10,000	0	0
Administrator Salary 1 FTE	0	0	0	0	57,000	57,000
Migration Fee	8,400	N/A0	8,400	N/A0	0	N/A
Total By Year	32,900	24,500	27,900	19,500	104,000	74,000
Total Investment At 3 Years		\$81,900		\$66,900		\$252,000

Note the much higher expenditure to host at SOCC, especially for the first year when new equipment and IT personnel would be required. Another factor to consider is the diversion of IT staff from other critical IT plans to accommodate the hosting at SOCC. This “opportunity cost” needs to be factored into the planning mix.

SOCC should also consider training for the core team of people that will be support and training faculty during the transition from CE4 to CE6. The application administration part of that training is included in the \$8,400 orientation and migration fee.

On the instructional design side, SOCC should consider one of the following:

WebCT Campus Edition 6 Educational Mentoring Program¹³²

During this customized workshop, which consists of a 2-3 day on-campus delivery with an online follow-up planning session, participants will learn the fundamentals of WebCT Campus Edition 6 product functionality and application (GUI) administration. Participants will develop custom training and mentoring solutions and strategies to help their faculty transition to WebCT Campus Edition 6. (Cost range: \$5,000 - \$10,000)

WebCT Campus Edition version 6 online workshops¹³³ (Cost range: \$325 - \$525/person depending on topic

- Upgrading to WebCT Campus Edition 6
- Designing with WebCT Campus Edition 6
- Administering WebCT Campus Edition 6
- Teaching with WebCT Campus Edition 6
- Creating and Managing Groups, Assignments, and Assessments in WebCT Campus Edition 6
- WebCT Campus Edition 6 Certification Exam for Faculty and Designers

Action Item 2.3 – Develop faculty training for DE technology usage

Priority: High

Estimated Investment: 1 qualified FTE (Development: .5 FTE, program maintenance / enhancements and delivery of the program: .5 FTE)

Results from the regional survey results and interviews strongly suggest a need for a continuing faculty development program -- teaching online requires specific skill sets (competencies).¹³⁴

Additionally, this need is reinforced through surveys of educational journals and white papers, and through discussions with DE principles outside of the region. Further, this might also be an exportable certification program using distance education. As such it portends to have benefit not only to the quality of regional DE but possibly could provide an additional revenue stream to SOCC.

SOCC has the opportunity to create a program that provides instructors with skills and competencies to develop and deliver distance education courses using WebCT, IPV or blended approaches. This program would go beyond technical use of the technology (i.e., what buttons to push).

The program needs to address in one way or another each of the following 50 points for competencies for online instructors.¹³⁵

<i>Competency</i>	<i>Before</i>	<i>During</i>	<i>After</i>
1. Act like a learning facilitator rather than a professor	√		
2. Avoid overloading new students at the start of the course	√	√	
3. Be clear about course requirements	√	√	
4. Be willing to contact students who are not participating	√		
5. Become a lifelong learner	√	√	
6. Communicate high expectations	√	√	
7. Communicate technical information in plain English	√	√	
8. Create a warm and inviting atmosphere that promotes the development of a sense of community among participants	√		
9. Create an effective online syllabus --one that lays out the terms of the class interaction --the expected responsibilities and duties, the grading criteria, the musts and don'ts of behavior, and explains the geography of the course	√		
10. Deal effectively with disruptive students	√		
11. Define participation and grading criteria	√		
12. Develop reciprocity and cooperation among students	√		
13. Develop relationships	√		
14. Effectively and efficiently manage (administer) the course	√	√	
15. Effectively use whatever technology has been selected to support online learning	√	√	√
16. Emphasize time on task	√		
17. Encourage contacts between students and faculty	√		
18. Encourage students to bring real-life examples into the online classroom	√		
19. Evaluate ourselves	√	√	√
20. Evaluate students	√	√	
21. Foster learner centeredness	√		

<i>Competency</i>	<i>Before</i>	<i>During</i>	<i>After</i>
21. Get students to respect assignment due dates and agreed-upon working times	√		
22. Give prompt feedback	√	√	
23. Harness the technology	√	√	√
24. Help integrate students into the institution and its culture	√		
25. Help students develop critical thinking skills	√		
26. Help students identify and use appropriate learning techniques	√		
27. Help students identify strengths and areas of needed improvement	√		
28. Keep informed of the latest trends and issues; continually improve your skills and knowledge	√	√	
29. Maintain the momentum of the course	√		
30. Make the transition to the online learning environment	√	√	
31. Manage student expectations	√	√	
32. Mandate participation. Step in and set limits if participation wanes or if the conversation is headed in the wrong direction	√		
33. Model good participation	√		
34. Network with others involved in online education	√	√	
35. Prepare students for online learning	√	√	
36. Promote collaborative learning	√		
37. Promote reflection	√	√	
38. Provide structure for students but allow for flexibility and negotiation	√	√	
39. Remember that there are people attached to the words on the screen	√		
40. Respect diverse talents and ways of learning	√		
41. Respect institutional performance guidelines	√		
42. Respect privacy issues	√	√	
43. Set up a well-organized course site	√		
44. Teach students about online learning	√		
45. Translate content for online delivery	√		
46. Use active learning techniques	√		
47. Use best practices to promote participation	√		
48. Use humor	√		
49. Use the web as a resource	√	√	
50. Most of all have fun and open yourself to learning as much from your students as they will learn from one another and from you!	√		

Oregon Department of Education provides some professional development programs through its e-Learning Professional Development Series.¹³⁶ This Series is for K-12 teachers, administrators, and education professionals.

SOESD also provides educator training “camps” or cyber fairs each year.

Hold annual Distance Education Summits. Conferences are another source of information to be used to develop and enhance faculty training programs.

Action Item 2.4 – Coordinate DE IT needs with the strategic plan for SOCC IT

Priority: Medium

The IT improvements listed in the IT Strategic Plan merit support. Some when considered from the point of view of DE take on a greater sense of urgency. Several of these planning elements (**) are reinforced through this DE strategic plan:

- Create a Learning and Teaching Center
- Build an Advanced Science and Technology Center
- Expand and support online courses **
- Increase opportunities for on-line workforce courses **
- Strengthen quality of instruction through staff and faculty training **
- Implement a student and faculty on-line and call-in technology help desk *
- Redesign Southwestern web site **
- Offer on-line support services to all students **
- Provide access to additional full-text online databases
- Create a wireless campus for students, faculty, and staff
- Develop additional web-based instructional modules **
- Purchase and install enterprise backup solution – very important!!

Action Item 2.5 – Collaborate to create regional telecommunications solutions

Priority: High

Estimated Investment: Staff time to participate in collaborative efforts

The telecommunications access issues on the south coast are beyond the capabilities of just SOCC to address. Issuing an RFP will not achieve anything at this time due to the scale of this challenge. Only through participation in collaborative efforts will there be relief.

Join in and support the efforts of Onno Husing, Executive Director of the Oregon Coastal Zone Management Association (OCZMA) the efforts underway to craft a coastal region telecommunications strategic plan.

Re-engage with the Oregon Telecommunications Coordinating Council in their efforts to “promote access to broadband services for all Oregonians in order to improve the economy in Oregon, improve the quality of life in Oregon communities and reduce the economic gap between Oregon communities that have access to broadband digital applications and services and those that do not, for both present and future generations...” ORS 759.016 (1)

The South Coast Telecommunications Task Force seat on the council is vacant and has been so for well over a year. Encouragement for the south coast to re-engage and to participate in this effort has not been responded to of late. Previously both Jon Anderson and John Berman both participated. Engaging in this statewide approach to telecommunications policy planning is

critical to ensuring the south coast is included in statewide policy determinations regarding broadband.

The time for sitting back and waiting for someone else to do it for the south coast is over. SOCC can play a significant leadership role in this activity on behalf of the south coast's residents and institutions.

Action Item 2.6 – Address needs of minorities and other underserved audiences

Priority: Medium

Estimated Investment: Web page additions and See Action Item 2.9 – Provide additional staff to support growth of DE

Women

Data shows that women are significant users of DE in the region at a rate of over 2:1 to men. Funding to take courses would likely help across the board. Outreach to create awareness of opportunities for women to gain education and skills training through DE would also be valuable (see Goal 5 – Ensure public awareness of distance education availability and its value).

Other Minorities

Add Spanish language pages to the SOCC web site to more actively engage the potential enrollment in DE programs of members of the growing Hispanic community.

The “face” of the south coast region is changing, and at a very rapid pace. At this time the SOCC web site does not convey an awareness of Hispanic community needs. The only paragraph in Spanish on the web site lacks use of proper punctuation (accent marks).¹³⁷

Action Item 2.7 – Address needs of outlying communities – learning centers

Priority: High

Estimated Investment: Requires additional analysis

Libraries in these two rural and isolated south coast communities are scheduled for replacement. There is an opportunity to become involved in planning details to include options for learning centers or, at a minimum, consideration for additional Internet ready PC's and IPV resources. Lots of analysis and community outreach work to be accomplished here but the timing is workable, especially for Port Orford. Small rural communities don't address library capital projects but every few generations. Now's the time to act!

Port Orford

The Port Orford library (<http://www.polibrary.org/index.html>) is to be relocated so that it will be adjacent to the North Curry Family and Children's Center (www.nfcc.com). Funding appears in place of Gold Beach while Port Orford has been given approvals to apply for funding. \$100,000

raised locally for new library construction, \$150,000 grant from Meyer Memorial Trust, The Ford Family Foundation granted \$150,000 plus other fundraising puts them at \$800,000 in fund raised. They have just received word from federal (HUD) Community Block Grant are eligible to apply for \$500,000.

The NCFCC is a community based resource dedicated to helping serve and support our families including all youth, adults and seniors with a strength based, holistic coordinated approach. Their coordinated services promote health, self-sufficiency, lifelong learning, employability and success in family and career. They are dedicated to helping support families to raise children to grow up healthy, educated and prepared for the future. This is the local OneStop.

The collocation of the library with the OneStop makes this a town hub and meeting place. They both already work together on projects, including training using technology.

This resource could serve as a Port-Orford/Langlois learning center. The library currently has high-speed access (100mbps! Per PC monitoring). The head librarian Tobe Porter and the Tere Tronson the OneStop director are very interested in exploring a collaboration with SOCC to establish a distance learning center in Port Orford. At this point in the design phase, IPV might be a possibility with proper analysis and design. Indeed, there's a compelling telemedicine purpose to be addresses due to the nature of the OneStop and it's family treatment orientation. For example, mental health consults as well as clinical evaluations might be delivered in a shared facility. This could also serve as a training center for EMT/EMS technicians.

Gold Beach

Planning for the Curry Public Library (<http://www.cplib.net/index.html>) in Gold Beach is further along than for the Port Orford facility. As such, the likelihood of adding IPV into the mix is less probable. Additionally, there is an SOCC presence in Gold Beach where IPV might be added. Groundbreaking has been delayed but should commence early next year. In 1985, the Curry Public Library District board envisioned the need for a new library for the community in the future and established a building reserve fund for that purpose. Much progress has been achieved since that time including purchase of a 7.44-acre site, architectural plans, and a wetlands mitigation project. The \$2,012,220 project will be funded thorough a combination of building reserve funds, grants, USDA loan/grant, and \$190,000 in community funding support, of which \$55,000 has been raised to date.

The completed project will showcase a 10,000 sq. ft. state-of-the-art library with a full array of library services including access to a varied collection of over 33,000 titles in various formats, access to computers and the Internet, wireless connectivity for laptops, interlibrary loan, story time and summer reading programs, community outreach, and a well trained helpful and courteous staff. The substantial and worthwhile project should be completed by late 2006 if the remaining fundraising goal of \$125,000 is met.

Currently, five Internet access computers are available to patrons including one for use by children and youth. Patrons with wireless laptops can access the Internet through the library's

wireless network. Eight computers and workstations as well as wireless are planned for the future library.

Action Item 2.8 – Provide IPV at the SOCC Gold Beach Center

Priority: Medium (rated as medium due to data for current IPV course offerings and usage track record for DE)

Estimated Investment: \$8,000 to \$12,000

Videoconference components might use the Polycom VSX 7000e¹³⁸¹³⁹ as one option to consider:

- Ideal for medium to large rooms of up to 40 people
- Fits seamlessly with any meeting room, flat panel displays, plasmas and LCD's
- Industry's most advanced video technology, Pro-Motion™ offers smooth, natural motion and sharp clear images for outstanding video
- Industry-leading audio capabilities with Polycom StereoSurround™ offering voice clarity during simultaneous conversations
- Call any standard base conferencing system easily without worrying about audio and video compliance
- Easily share presentations, movie files, audio clips and pictures during a video conference
- Versatile, connecting to any TV or XGA display



Requires a display unit and cart.

Requires a T-1 connection, likely from Verizon. Cost estimated at \$600 – 1,200.

Action Item 2.9 – Provide additional staff to support growth of DE

Priority: High

Estimated Investment: 1 fulltime director of DE to coordinate and manage DE growth

1 fulltime FTE to provide DE support
1 fulltime DE administrative assistant

Director

There needs to be a dedicated manager exclusively devoted to grow DE and ensure that it is a quality offering. Discussions with persons experienced in these matters indicate this is a crucial step that needs to be made, if SOCC is serious about DE. Curriculum development, faculty preparation, transitioning to a new version of the WebCT platform, actively getting out into the community, spearheading public awareness and marketing campaigns, and the demands of administration of the program mean that this will easily be a fulltime engagement. For the DE program to prosper and serve, it will require this level of dedication.

Support

Growth in the use of the online delivery of education requires support for both faculty and students. One person handles the current support. As the program grows and additional support is provided to teachers as well as to students, the need to provide additional staff grows as well.

This would also provide for rotation of off-hour coverage. Students and faculty need to know they can always get a hold of a live body when they are most likely to be using the online service, evenings and week ends.

Goal 3 – Identify funding strategies to meet future financial requirements

Action Item 3.1 – Develop public-private partnerships

Priority: Low

Estimated Investment: Research and analysis time

Given today's financial pressures and rising demands, this is an arena that deserves further understanding and development.

Public-private partnerships are a contractual arrangement whereby the resources, risks and rewards of both a public agency and private company are combined to provide greater efficiency, better access to capital, and improved compliance with a range of government regulations regarding the environment and workplace. Through this agreement, the skills and assets of each sector (public and private) are shared in delivering a service or facility for the use of the general public. Public-private partnerships can take a wide variety of forms. In addition to the sharing of resources, each party shares in the risks and rewards potential in the delivery of the service and/or facility. The public's interests are fully assured through provisions in the contracts that provide for on-going monitoring and oversight of the operation of a service or development of a facility. In this way, everyone wins -- the public entity, the private company and the general public.

Public-Private Partnerships have been in use in the United States for over 200 years. Public-private partnerships have been in existence since long before the Revolutionary War. In 1652, the Water Works Company of Boston was the first private firm in America to provide drinking water to citizens. This contractual arrangement between public entities and private companies for the delivery of services or facilities is used for water/wastewater, transportation, urban development, and delivery of social services, to name only a few areas of application. Today, the average American city works with private partners to perform 23 out of 65 basic municipal services. Also, entities realize that the combined capital and intellectual resources of the public and private sectors can result in better, more efficient services. The use of partnerships is increasing because it provides an effective tool in meeting public needs, improving the quality of services, and more cost effective.

Evidence suggests that the use of public-private partnerships is on the rise. Even in the best of times, public entities at all levels are challenged to keep pace with the demands of their constituencies. During periods of slow growth, revenues are frequently not sufficient to meet spending demands; necessitating painful spending cuts or tax increases. Similarly capital available to private sector companies can be difficult to obtain. Partnerships can provide a continued or improved level of service, at reduced costs. And equally important, partnerships can also provide the capital needed for construction of major facilities. By developing partnerships public and private sector entities can maintain quality services despite budget limitations.

Continually rising costs, coupled with constraints on revenues, leave many school districts with few options other than to cut back expenditures on classes, teachers, teachers' salaries, and infrastructure; or to raise money through additional taxes. Neither option is desirable nor simple to implement.

There is, however, a third viable option -- partnerships between the public schools and the private sector -- that may alleviate some of the pressures on school districts, enabling them to continue to provide vital services and infrastructure.

For many years, school districts have contracted out ancillary services (for example, transportation, maintenance, labor negotiations, and data processing), saving 20 to 30 percent in operating costs. Current patterns in private provision of school lunch programs, for example, suggest 30 percent growth per year during the next 10 years. Today, building from these successful partnerships, a growing number of school districts are expanding the concept to more fundamental education services. The key areas that offer state officials opportunities to realize cost savings through privatization and contracting out are: 1) infrastructure and 2) curriculum.

Financing options offered by the private sector are varied and flexible. Some require an open enrollment or school choice plan; others depend on private philanthropy; still others depend on the willingness of school districts to contract out in areas traditionally met by the districts themselves.

School districts and community colleges could further explore savings potential from public/private partnerships, as an alternative to increased taxes and service cuts and in response to growing school enrollments and increasing costs

Action Item 3.2 – Identify potential financial resources

Priority: High

Estimated Investment: Research and analysis time, over time

DE generated revenue from course offerings and services should be one source.

The following are potential financial resources to review. Timing is everything and so this task requires and ongoing due diligence. Grant identification can be an elusive game.

First, sign up for the daily email grants advisory from www.grants.gov.

American Psychological Association

<http://www.apa.org/ed/grants.html>

Apple K-12 Education

<http://www.apple.com/education/>

Beaumont Foundation

<http://www.bmtfoundation.com/bfa/us/public/>

Council on Foundations

<http://www.cof.org/index.cfm?containerid=89&menuContainerName=&navID=0&orglink=51>

Chronicle of Philanthropy

<http://philanthropy.com/>

eSchool News

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

Exploiting Technology Grants: Information Resources

<http://www.unc.edu/cit/guides/irg-07.html> (elderly, but may be of some use)

Federal Register Documents at the DoED

<http://www.ed.gov/news/fedregister/announce/index.html>

Foundation Center

<http://fdncenter.org/>

Funding for Technology

<http://www.mcrel.org/connect/tech/funding.html>

GrantsAlert.com

<http://www.grantsalert.com/>

Grantsmanship Center

<http://www.tgci.com/>

Hewlett-Packard

<http://grants.hp.com/focus.html>

IBM

<http://www.ibm.com/ibm/ibmgives/>

Information Center on Disabilities and Gifted Children

<http://ericec.org/fact/grants.html>

Intel

<http://www97.intel.com/education/>

Microsoft

<http://www.microsoft.com/education/default.mspix>

National Endowment for the Humanities (NEH)

<http://www.neh.gov/grants/index.html>

National Science Foundation (NSF)

http://www.nsf.gov/funding/research_edu_community.jsp

National Telecommunications and Information Administration

<http://www.ntia.doc.gov/>

NOAA

http://www.oesd.noaa.gov/funding_opps.html

Nonprofit Resource Center

<http://www.not-for-profit.org/>

Office of Justice Programs (OJP)

<http://www.ojp.usdoj.gov/fundopps.htm>

Office of Juvenile Justice and Delinquency Prevention (OJJDP)

<http://www.ojjdp.ncjrs.org/funding/otherfederalfunding.html>

Public Telecommunications Facilities Program

<http://www.ntia.doc.gov/ptfp/>

Resource Guide to Federal Funding For Technology in Education

<http://www.ed.gov/Technology/tec-guid.html> (elderly, but may be of some use)

<http://www.netc.org/grants/index.html>

SchoolGrants

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

tech-LEARNING

<http://techlearning.com/resources/grants.jhtml>

Technology Grant News

<http://www.technologygrantnews.com/grant-index-by-type/educational-technology-grants.html>

U.S. Department of Agriculture/Rural Utilities Service

<http://www.usda.gov/rus/dlt/overview.htm>

U.S. Department of Education

<http://www.ed.gov/funding.html>

Goal 4 – Develop and sustain partnerships

Action Item 4.1 – Intra-regional partnerships

Priority: Medium

Estimated investment: Time

Continue to work with existing partnerships and look to new opportunities for partnerships within the region. Some examples include:

- Chambers of commerce
- Economic development
- Faith groups
- Libraries, especially the new developments in Port Orford and Gold Beach
- Hospitals, medical clinics and other healthcare entities
- Oregon University System at SOCC
- Ports
- Public Health Departments
- Public safety – law enforcement, fire departments, emergency medical services
- Service clubs (e.g., Kiwanis, Rotary, etc.)
- South Coast Educational School District and school districts
- Workforce development

Action Item 4.2 – Inter-regional partnerships

Priority: Medium

Estimated Investment: Time

Look for opportunities to share license and maintenance agreements as well as knowledge and experiences. Look for opportunities to swap course offerings to reduce costs.

- Area Health Education Center of South West Oregon

- Statewide community colleges, especially PCC to coordinate WebCT hosting and upgrade with DAS
- Oregon Center for Nursing
- Oregon Department of Administrative Services
- Oregon Department of Education
- Oregon Governor’s Workforce Initiative
- Oregon Nursing Leadership Council
- Southern Oregon Educational School District

Goal 5 – Ensure public awareness of DE availability and its value

Action Item 5.1 – Develop a DE public information and education campaign

Priority: Medium

Estimated Investment: Time and \$1,000

Awareness of DE’s value and availability could be strengthened by additional promotional and educational activities. Develop a PowerPoint presentation and take it “on the road” to a variety of community meetings and events. This would be in addition to newspaper ads, publicity pieces, radio and TV public service announcements, flyers, etc.

Action Item 5.2 – Use the Web site and email to improve DE promotion

Priority: Medium

Estimated Investment: \$60 + Web site changes.

Add Web elements to allow interested parties to sign up for email advisories on DE opportunities. Take advantage of opt-in/out agreements with end-users for sending of information on DE. Use “push” marketing techniques to send messages to folks that have signed up for the service. This is not SPAM!. Yet judicious use of the approach is advised. One product for this purpose is WorldMerge¹⁴⁰ at \$59.

WorldMerge allows you to quickly and easily generate large numbers of personalized e-mail messages using your "internet-ready" database of recipients and a "template" e-mail message. Here a just a few of the many uses:

- Provide monthly customized statements to your clients
- E-Mail your customers with a product upgrade or offer
- Send a customized newsletter to subscribers
- Send a personalized "thank you" e-mail to your new customers

Features include:

- Visual (WYSIWYG) editing of HTML messages using the included HTML Editor Plug-In
- Connects directly to many popular mailing list and database formats.

- Project Wizard gives you the power to create new mailing projects quickly and easily
- No limit on database fields
- Unlimited mailing projects
- Up to 20 message attachments per recipient
- Maximum list size of 100,000 recipients
- Super Fast - Broadcast approximately 8,000 messages per hour
- Direct Send mode for ISP's without an outgoing mail server

Budget

Additional work is required here to produce a final budget recommendation. Decisions as to adoption of recommendations are the required. An Excel pro forma modeling tool is included on the CD that comes with this document. Use it to assist with preparation of the final budget.

Some of the dollar recommendations are as follows:

Action Item	Amount
2.1 Host WebCT version 4 with DAS	\$13,200 (1 year) or \$39,600 (3 years)
2.2 Develop a migration plan to WebCT version 6.0	\$47,400 (2 years), \$70,000 (3 years)
2.3 Develop faculty training for DE technology usage	\$33,825 / year - additional FTE specialist
2.8 Provide IPV at the SOCC Gold Beach Center	\$8,000 – 12,000
5.1 Develop a DE public information and education campaign	\$1,000
5.2 – Use the Web site and email to improve DE promotion	\$59 bulk email program

Suggested Implementation Steps

A Gantt chart representing the implementation for the recommendations of this strategic plan can be found in Appendix 9. The following 8 items may serve as reminders or points to consider as you move into the next steps of implementing the strategic plan.

1. Identify an Implementation Management Team

The recommendations address actions to be conducted in multiple dimensions of effort, a management team (sourced from SCRDLN?) needs to be assembled that can adequately represent the various areas to be addressed. Each member needs to have authority to make decisions on a majority of matters for their respective area (some decisions will of necessity require collaboration within respective departments or organizations. The trap here is when the team gets too large or can't make most decisions quickly. Keep that core team to a manageable size.

2. Identify and Agree To Priorities

There's a lot of information in this strategic planning document to digest. Conclusions are the work of only one person. For any strategic plan to achieve success it must have the buy-in of those who would be impacted by the approach and outcomes. It may not be reasonable to include every last person to be touched

by the outcomes. Make sure that solid representation of the leadership and decision-maker group is fully engaged and in agreement..

3. Create a financial “scouting” team

The report contains a list of many possible funding sources. Yet new opportunities constantly emerge. It’s almost impossible for a single person to find them all. Create a “financial scouting team” with a team leader. That team leader needs to be a part of the Implementation Management Team. Be creative by combining resources where possible. Traps include limiting the search for funding or not creatively exploring the limits and constraints of opportunities. In the projected financial environment over the next several years, funding activities likely will require extraordinary creativity to compete for and obtain funds. Collaboration and cooperation in this task on behalf of the entire region, not just the individual institutions, will be critical to obtaining those funds.

4. Grant Preparation

Ensure that there is a solid basis for pursuing any grant possibility. Utilize the assessment information in this planning document to it’s fullest. However, sometimes it’s not the facts that drive to receiving funding but rather the story that is told. Creative writing (story telling) has a place in the preparation of grants.

5. Monitoring

The future is littered with challenges, some not discernable at the start of a journey even with considerable planning. Careful monitoring of progress at each step (and even in between) along with an understanding that some flexibility may be needed to achieve all intended outcomes will serve the implementers well. Frequent monitoring is necessary and useful. The ability to identify emerging issues quickly and to make often relatively minor adjustments early helps to ensure success. As such it is therefore critical to set up a mutually agreeable management reporting system to be employed by the Implementation Management Team that provides frequent full sunshine to all aspects of the implementation. The trap here is micromanagement and over-investing in reporting.

6. Curriculum

The demand for distance education will only grow for the foreseeable future. Southwestern and other institutions must stay in touch with the real needs of the region. Sorting through political “noise” can sometimes be a daunting challenge. This means a constant quest for understanding needs and for courses and training programs that might be delivered all or in part using distance education modalities. Keeping the offerings fresh and meaningful will be a constant challenge. Ensuring that curriculum is driven by market needs (i.e., student needs)

and not just by the preferences of educators will be critical to meeting those needs.

7. Technology

Count on it changing, and at a faster rate than you thought possible! Embrace change. Build obsolescence and replacement into budgets with set-asides for such where possible. Invest in training to keep skills current. Trade shows and conferences are a must and must be included in budgets. Create a technology advisory team composed of technical staff as well as key end-users. The leader of that team needs to be on the Implementation Management Team. Traps here include hanging onto a capital investment to the point where it is costing financial resources and not saving. Another trap is to create a technology team that does not include end-users.

8. Relationship Management

Collaborations require extensive nurturing. Never take a partner for granted. Take extra measures to keep partners informed and involved, as it makes sense.

Summary and Conclusions

SOCC has made remarkable progress with its Distance Education offerings in the short period since DE first commenced under its auspices. This growth has come through a great dedication, perseverance, creativity and commitment to meeting student needs. To build on and sustain the commitment demonstrated so far will require senior management support, an infusion of capital to support technology needs and acquisition as well as preparation and support of critical human resources. While challenging, there are some excellent prospects for continued growth and sustainability. A number of critical actions are needed to sustain distance education in the region and to take it to the next level.

1. Provide teacher professional development in online course delivery.
2. Expand comprehensive technical support for students and faculty.
3. Stabilize the online course delivery platform hosting location and prepare for the impending major upgrade.
4. Focus efforts with regional collaborators to eliminate the broadband divide.
5. Collaborate and cooperate on DE strategies across the region and within the state.
6. Continue to research and deploy DE enhancements.

Southwestern Oregon Community College (SOCC) commitment to an integrated and collaborative approach to strategic planning continues and is demonstrated by this strategic planning approach. SOCC's work to date in the region as well as the Public Telecommunications Facilities Program (PTFP) Planning Grant Summary contains numerous indications that they seek and will continue to seek an integrated approach to the challenge "...to improve access to education for K-12 and postsecondary students in Coos, Curry and western Douglas counties."
141,142

Already in place are collaborative efforts on which to build a strategic vision (South Coast Rural Distance Learning Network – SCRDLN). Further there is acknowledgement that “the needs...cannot be met by the participating institutions acting individually, but can be cost-effectively met through a regional collaboration.”¹⁴³

SOCC and partners understand the many dimensions that contribute to the current urgent need to educate its population – socio-economic disparities, rural isolation, scarcity of financial resources, growing minority populations and gender issues.¹⁴⁴ They also recognize the value of acquiring additional knowledge and assistance from others with experience working with low-access, rural communities with socially economically challenged schools, students and families.¹⁴⁵

Several regional assessments conducted over the years have previously focused on education needs.¹⁴⁶ The focus of this assessment and planning process is on regional distance education. It combines telecommunications and information technology knowledge plus information gained across the many dimensions of meeting the education challenge of rural Oregon.

The final product includes a substantial gathering of facts and information from a very wide variety of resources to support future fund-seeking efforts. The synthesis of what may be seemingly disparate sets of information was used to create this strategic plan. Before adoption the recommendations of the consultant will require review and concordance by appropriate distance education decision-makers in the south coast region.

It’s also important to recognize that given the myriad facts and complexities of the topic that these results while highly data-driven are subject to interpretation and as such are the opinion of solely one person. Others may differ in their views. Again, this is why it will be important to vet the recommendations with planning partners in the region.

The consultant remains committed to the future of DE on the south coast and as such will be available for a reasonable period of time to answer questions, meet with decision-makers and remain available to address any concerns that may arise from this body of work.

Appendix 1 - 21st Century Education, Technology and the Role of Distance Education

Introductory Remarks

Education delivery methods continue to evolve in America and the world. Applied instructional theory now sees more and more integration of the tools of information technology (“IT meets IT”). As a result we are seeing challenges to so-called traditional pedagogical approaches. While the classroom is no stranger to change, the rate of change brought on by an inundation of advances in information technology and high-speed telecommunications services is a significant catalyst in the discussion over what to do and what not to do.

Educators should not feel alone in this sea of change awash with the opportunities afforded by technological innovation. Retail, healthcare, manufacturing, transportation and numerous other sectors experience this same challenge and share many similar issues of planning and absorption.

Yet it’s not merely technology that is spurring change. The students and businesses that drive the marketplace in our consumer-oriented society are demanding more and more from their educational institutions. We might also add for less and less cost. How will we meet increased demands by populations for ever increasing needs for education and skills transfer? How do we ensure the opportunities of education are available to all who want and need them? How we ride the waves of constant and rapid change will have everything to do with our abilities to meet the demands of students of all ages in every location.

Distance education using digital technologies and telecommunications will play a crucial role in meeting the demands for anytime, anywhere education in the 21st century. However, it’s not a “one size fits all” proposition.

Distance Education Defined

Several definitions have emerged.

"Distance Learning (DL) is an instructional delivery system which connects learners with educational resources. DL provides educational access to learners not enrolled in educational institutions and can augment the learning opportunities of current students. The implementation of DL is a process which uses available resources and will evolve to incorporate emerging technologies."¹⁴⁷

"Distance education is planned learning that normally occurs in a different place from teaching and as a result requires special techniques of course design, special instructional techniques, special methods of communication by electronic and other technology, as well as special organizational and administrative arrangements".¹⁴⁸

"The process of extending learning, or delivering instructional resource-sharing opportunities, to locations away from a classroom, building or site, to another classroom, building or site by using video, audio, computer, multimedia communications, or some combination of these with other traditional delivery methods."¹⁴⁹

"The acquisition of knowledge and skills through mediated information and instruction, encompassing all technologies and other forms of learning at a distance."¹⁵⁰

"Distance education is instruction that occurs when the instructor and student are separated by distance or time, or both."¹⁵¹

"Distance learning is a term which encompasses all learning that takes place at locations remote from the point of instruction. It is an option for beginning studies or continuation of study off-campus in locations via cable television, internet, satellite classes, videotapes, correspondence courses, or by other means. Distance learning integrates technology in educational courses whereby students may view and participate in lectures from various locations, or on an individual basis. Various forms of computer-based communication may be used to facilitate class discussions and communication among faculty and students. Distance learning may take the forms of an instructor-led course delivered via satellite to traditional home study correspondence courses, which is viewed by the hierarchy in education as still the most effective practice which yields the highest course grades, in short, results."¹⁵²

"Trying to define distance education is rather like trying to define art of science...we all have a sense of what it is when we see it but would be hard pressed to accurately define it. Learners and teachers are separated by geography and or time."¹⁵³

Last, but certainly not least, here's the SOCC definition.

"Distance education is any type of learning where students and instructor are separated by time and/or place. It can be delivered using a variety of methods or technologies including modem/on-line computer, video tape, public broadcasting, satellite, or other media. Southwestern offers distance education by modem/on-line computer instruction through Southwestern On-Line and through a consortium, OCCDL, over the Internet, as well as selected telecourses and teleconferences through Ed-Net satellite."¹⁵⁴

No matter how you define it, distance education is part of a field undergoing fundamental change.

"Although not an old discipline by academic standards, distance education practice and theory has evolved through five generations in its 150 years of existence. For most of this time, distance education was an individual pursuit defined by infrequent postal communication between student and teacher. The last half of the twentieth century witnessed rapid developments and the emergence of three additional generations, one supported by the mass media of television and radio, another by the synchronous tools of video and audio teleconferencing, and yet another based on computer conferencing. The first part of the twenty-first century has produced the first visions of a fifth generation—based on autonomous agents and intelligent, database-assisted learning—that we refer to as the educational Semantic Web. Note that each of these generations has followed more quickly upon its predecessor than the previous ones. Moreover, none of these generations has completely displaced previous ones, so that we are left with diverse yet viable systems of distance education that use all five generations in combination. Thus, the field can accurately be described as complex, diverse, and rapidly evolving.

However, acknowledging complexity does not excuse inaction. Distance educators, students, administrators, and parents are daily forced to make choices regarding the pedagogical, economic, systemic, and political characteristics of the distance education systems within which they

participate. Never in the history of life on our planet has the need for informed and wisdom-filled action been greater than it is today. Distance education is a discipline that subsumes the knowledge and practice of pedagogy, of psychology and sociology, of economics and business, of production and technology.

As we enter the twenty-first century, the world is in the midst of a great turning as we adopt and adapt to the technological capabilities that allow information and communication to be distributed anywhere/anytime. Education is one of the few sustainable means to equip humans around the globe with the skills and resources to confront the challenges of ignorance, poverty, war, and environmental degradation. Distance education is perhaps the most powerful means of extending this resource and making it accessible to all.¹⁵⁵

21st Century Education and Digital-Age Proficiencies

Distance education is a Digital Age mechanism for distributing education. As such there are reasonable questions to ponder as we move forward with Distance Education, questions that emerge as we come to a fuller understanding of what is meant by a 21st century education and the challenges we face in meeting this transformation.

To prepare students to thrive in a digital economy they will need Digital-Age proficiencies. It is important for the educational system to make parallel changes in order to fulfill its mission in society. The educational system needs to understand and embrace the 21st-century skills within the context of rigorous academic standards.

It's a "good news, bad news" story.

"First, the good news: in the years ahead, the declining cost of computation will make digital technology accessible to nearly everyone, from inner-city neighborhoods in the United States to rural villages in developing nations. These technological advances have the potential to fundamentally transform how and what people learn throughout their lives. Just as advances in biotechnology made possible the "green revolution" in agriculture, new digital technology can make possible a "learning revolution" in education.

Now, the bad news: while digital technology could make a learning revolution possible, it certainly does not guarantee it. Early results are not encouraging. In most places where digital technology is used in education, it is used simply to reinforce outmoded approaches to learning. Even as scientific and technological advances are transforming agriculture, medicine, and industry, the ideas and approaches to teaching and learning remain mostly unchanged. To take full advantage of new technology, we need to fundamentally rethink our approaches to learning and education and our ideas of how new technology can support them."¹⁵⁶

In the last decade, the federal, state, and local governments have invested over \$40 billion to put computers in schools and connect classrooms to the Internet. Results are positive related to hardware and connectivity. The percentage of schools connected to the Internet rose from 35 percent in 1994 to 99 percent in 2001. The student to Internet connected computer ratio has improved dramatically in an even shorter time frame, going from 12 students per computer in 1998 to five to one in 2001. Many students who do not have computer and Internet access at home at least have some access at school. However, there are indications that many schools are not using this new infrastructure to maximum advantage.¹⁵⁷

Michael Resnick in a paper “Revolutionizing Education in the Digital Age” shares the following assessment:

“Education and learning are often considered in terms of information: What information is most important for people to know? What are the best ways to transmit that information from one person (a teacher) to another (a student)? What are the best ways to represent and display information so that it is both understandable and learnable? It’s not surprising that people see a connection between computers and education. Computers enable transmission, accessibility, representation, and manipulation of information in many ways. Because education and computers are both associated with information, the two seem to make a perfect marriage. This focus on information, however, is limiting and distorting, both for education and for computers. If we want to take full advantage of new computational technology and help people become better thinkers and learners, we need to move beyond these information-centric views of computing and learning.

Over the past 50 years, psychologists and educational researchers, building on the pioneering work of Jean Piaget have come to understand that learning is not a simple matter of information transmission. Teachers cannot simply pour information into the heads of learners. Rather, learning is an active process in which students construct new understanding of the world around them through active exploration, experimentation, discussion, and reflection. In short, people don’t *get* ideas; they *make* them.

Despite the common use of the phrase “information technology,” or IT, computers are more than simply information machines. Of course, computers are wonderful for transmitting and accessing information. Furthermore, they are a new medium through which people can create and express themselves. If we use computers to simply deliver information to students, we will fail to take advantage of the revolutionary potential of new technology for transforming learning and education.

It is through design activities that computers offer the greatest new learning opportunities. Research has shown that many of the best learning experiences come when engaged in designing and creating things, especially things that are meaningful either to us or to those around us. Computers can also be used as a “material” for making things—and not just by children, but by everyone. Indeed, the computer is the most extraordinary construction material ever invented, enabling people to create a variety of things, from music videos to scientific simulations to robotic creatures. Computers can be seen as a universal construction material, greatly expanding what people can create and what they can learn in the process.

Unfortunately, most people don’t use computers that way today. When people are introduced to computers, they are typically taught how to look up information on the Web, how to use a word processor, and how to send e-mail. But they don’t become *fluent* in the technology.

What does it mean to be digitally fluent? Consider the analogy with learning a foreign language. If someone learned a few phrases so that he could read menus in restaurants and ask for directions on the street, would you consider him fluent in that language? Certainly not. That type of phrase-book knowledge is equivalent to the way most people use computers today. This knowledge is useful, but it is not fluency. To be truly fluent in a foreign language, one must be able to articulate a complex idea or tell an engaging story. In other words, one must be able to “make things” with language. Similarly, being digitally fluent involves not only knowing how to use digital technology, but also knowing how to construct things of significance with digital technology.

Fluency with language not only has great utilitarian value in everyday life, it also has a catalytic effect on learning. When one learns to read and write, one is in a better position to learn many other things. This is also true with digital fluency. In the years ahead, digital fluency will become a prerequisite for obtaining jobs, for participating meaningfully in society, and for learning throughout a lifetime.”¹⁵⁸

Schools face the challenge of preparing students to live, learn and work successfully in today's knowledge-based digital society. To do so will require high-performance learning of academic content using 21st-century skills and tools. To accomplish this, schools must become high-performance learning organizations (see footnote for graphic showing components and relationships within a High-performance school system).¹⁵⁹

The following skill clusters, when considered within the context of rigorous academic standards, are intended to provide the public, business and industry, and educators with a common understanding of -- and language for discussing -- what is needed by students, citizens, and workers in the Digital Age (see footnote for an expanded list of the components of 21st Century Learning).¹⁶⁰

Digital-Age Literacy

- Basic, scientific, economic, and technological literacies
- Visual and information literacies
- Multicultural literacy and global awareness

Inventive Thinking

- Adaptability and managing complexity
- Self-direction
- Curiosity, creativity, and risk taking
- Higher-order thinking and sound reasoning

Effective Communication

- Teaming, collaboration, and interpersonal skills
- Personal, social, and civic responsibility
- Interactive communication

High Productivity

- Prioritizing, planning, and managing for results
- Effective use of real-world tools
- Ability to produce relevant, high-quality products

Educating the Generations

The first thing to understand is that there is a sea change underway with students. It is not just an “age thing.” While understanding the learning styles and perceptions of students is critical to the creation of better and more successful learning environments, a change in student demographics or perceptions is not always followed by changes at the institutional level. The kind of enterprise wide change necessary to break down old ways of doing business requires leadership, new organizational structures, and constant measurement.¹⁶¹

Consider the following imaginary student.

“Each morning, Jason Keene wakes up in his dorm room and peers over at his PC monitor to see how many IMs arrived while he slept. Sometimes more than 15 attempts to reach him are visible on the screen, along with various postings to the blog he’s been following since the semester began in January. After a quick trip to the shower, the sophomore computer science major pulls up an eclectic mix of news, weather, sports, and information on the home page he customized using Google. He then logs onto his campus account to see if the previous day’s sociology lecture is posted. He notices a reminder that there will be a quiz that day as well as another one letting him know that the paper he’s writing needs to be e-mailed to a professor by midnight the next day. With a cup of instant coffee on the desk next to him, Jason IMs a few friends and then pulls up a wiki to review progress a teammate has made on a project they’re doing for their computer science class.¹⁶²

The rest of us might be wondering when Jason is going to start his day, but if you ask Jason, he’s already halfway through it. Other than the lecture that he may or may not attend—he can download the notes—he’s likely to spend most of the morning in his room. By noon, he’s sent a text message from his cell phone to a friend to meet him at the Student Union, where most afternoons he can be found sitting with a group of students, laptop poised on his knees, accessing notes, papers, and documents using the campus’s wireless network. Back in his room, he’s likely to stay up past midnight juggling notes, papers, instant messages, and an Internet-based multiplayer game he thinks he’s almost beaten. He’s been to the library once in the two years he’s been at college, and he communicates frequently with his professors via e-mail. When it comes to research, he’s more likely than not to consult Google and Wikipedia.

Students 18–22 years of age speak primarily about the ways in which they communicate and maintain community but not necessarily about specific technologies. That observation supports much of the current data about college-age students, most of who have grown up with technology and view it, not as a device or application, but as a means for communicating and maintaining relationships. The real news, however, is how little today’s college and university leaders know about Jason and his peers, and how that lack of knowledge could be hampering their ability to remain competitive.

NetGeneration and Millennial students

Today's Net Gen college students have grown up with technology. Born around the time the PC was introduced, 20 percent began using computers between the ages of 5 and 8. Virtually all Net Gen students were using computers by the time they were 16 to 18 years of age. Computer usage is even higher among today's children. Among children ages 8 to 18, 96 percent have gone online. Seventy-four percent have access at home, and 61 percent use the Internet on a typical day.¹⁶³

Whether or not students have access to computers and the Internet from home, they consider such access important. When high school students were asked why technology is essential to their education, responses included¹⁶⁴:

- It's part of our world.

- Technology is so embedded in our society, it'd be hard not to know how to use it.
- It's really helpful—it makes things faster.
- Abstract concepts are often easier to grasp when technology is used effectively as a teaching tool.
- Some students at my school who weren't great students are better ones now thanks to computers.
- Technology allows us to learn as much as we want to about virtually any topic.
- I usually connect with friends either to get help or to help others.
- By the teenage years, students use the Web extensively for school research (94 percent) and believe it helps with schoolwork (78 percent). Although technology is used heavily, students seem to keep technology in perspective. In their words:
- Teachers are vital to the learning process. Tech is good, but it is not a perfect substitute.
- Computers can never replace humans.
- Learning is based on motivation, and without teachers that motivation would cease to exist.
- A major part of school is building social skills. If we were to always communicate through technology and not in person, then the way we would view life would change dramatically.

The characteristics of traditional age (18-to-22-year-old) college students—a group sometimes called the Millennials -- have been described as individuals who:

- Gravitate toward group activity
- Identify with parents' values and feel close to their parents
- Believe it's cool to be smart
- Are fascinated by new technologies
- Are racially and ethnically diverse; one in five has at least one immigrant parent
- Are focused on grades and performance
- Are busy with extracurricular activities
- When asked about the biggest problem facing their generation, many respond that it is the poor example that adults set for kids.¹⁶⁵

Individuals raised with the computer deal with information differently compared to previous cohorts: "they develop hypertext minds, they leap around."¹⁶⁶ A linear thought process is much less common than the ability to or piece information together from multiple sources. Among other differences are their:

Ability to read visual images—they are intuitive visual communicators

Visual-spatial skills—perhaps because of their expertise with games they can integrate the virtual and physical

Inductive discovery—they learn better through discovery than by being told

Attentional deployment—they are able to shift their attention rapidly from one task to another, and may choose not to pay attention to things that don't interest them

Fast response time—they are able to respond quickly and expect rapid responses in return

Although many observations can be made about the Net Generation, several merit special mention because of the potential impact on higher education.

Nontraditional Students

At the same time that colleges and universities are graduating their first Net Generation learners, most campuses are experiencing an influx of nontraditional students.¹⁶⁷ Three-quarters of all undergraduates are "nontraditional," according to the National Center for Educational Statistics. Nontraditional students are defined as having one or more of the following characteristics:

- Delayed enrollment—did not enter postsecondary education in the same year they graduated from high school
- Attend part-time, for all or part of the academic year
- Work full time—35 hours or more—while enrolled
- Financially independent as defined by financial aid
- Have dependents, other than a spouse, which may include children or others
- Single parent, having one or more dependent children
- Lack of a high school diploma

The more nontraditional characteristics students possess, the less likely they are to persist in college after the first year or to graduate. Nontraditional learners tend to be concentrated in specific types of institutions. In community colleges, for example, nearly half the students have delayed beginning postsecondary education. Half also had two or more persistent risk factors. In contrast, 91 percent of students in four-year colleges enrolled immediately after high school; 85 percent had no persistent risk factors. Adult learners represent a significant category of nontraditional learners¹⁶⁸:

- 35 percent of undergraduates are adult learners
- 70 percent of all adult learners are female
- 38 is the median age of undergraduate adult learners
- 80 percent of adult learners are employed

The motivation for going to college is often different for adult learners compared to the Net Gen. Among adult learners 70 percent have a degree as their goal; the other 30 percent are seeking a certificate or a specific set of skills.

It is often said that we see the world through our own eyes. Our experiences and the environment around us shape how we think, behave, and act. Consider birthplace. If you were born in the south, you might have a southern accent; if raised in Canada, you would speak differently. Tastes in food and clothes might differ, as would customs and expressions. We are all products of our environment -- and technology is an increasingly important part of that environment.

Comparing the Generations

Few generalizations are entirely correct. However, generalizations -- such as those about generations -- highlight trends. Today's generations can be described as follows.¹⁶⁹

Birth Dates	Matures 1900–1946	Baby Boomers 1946–1964	Generation X 1965–1982	Net Generation 1982–1991
Description	• Greatest generation	• Me generation	• Latchkey generation	• Millennials
Attributes	• Command and control • Self-sacrifice	• Optimistic • Workaholic	• Independent • Skeptical	• Hopeful • Determined
Likes	• Respect for authority • Family • Community involvement	• Responsibility • Work ethic • Can-do attitude	• Freedom • Multitasking • Work-life balance	• Public activism • Latest technology • Parents
Dislikes	• Waste • Technology	• Laziness • Turning 50	• Red tape • Hype	• Anything slow • Negativity

Other attributes show generational trends as well (for example, attitude toward changing jobs or locus of community). One of the most striking attributes is the attitude toward the Internet. For the Net Gen, the Internet is like oxygen; they can't imagine being able to live without it.

Maybe It's Not an "Age Thing"

Although these trends are described in generational terms, age may be less important than exposure to technology. For example, individuals who are heavy users of IT tend to have characteristics similar to the Net Gen. In fact, the pervasiveness of technology -- in our professions and in our personal lives -- virtually ensures that most individuals gradually assume some Net Gen characteristics. For example, ask yourself:

- Are you more comfortable composing documents online than longhand?
- Have you turned your "remembering" (phone numbers, meetings, and so on) over to a technology device?
- Do you go to meetings with your laptop or PDA?
- Are you constantly connected? Is the Internet always on whether you are at home or work? Is your cell phone always with you?
- How many different activities can you effectively engage in at one time?
- Do you play video or computer games?¹⁷⁰

The differentiating factor may not be so much one person's generation versus another; the difference may be in experience. Whether the Net Generation is a purely generational phenomenon or whether it is associated with technology use, there are a number of implications for colleges and universities. Most stem from the dichotomy between a Net Gen mindset and that of most faculty, staff, and administrators.

Is More Technology Necessarily Better?

Maybe yes, maybe no. It is an almost instinctive assumption to believe that Net Gen students will want to use IT heavily in their education; they certainly do in their personal lives. However, if

you ask Net Gen learners what technology they use, you will often get a blank stare. They don't think in terms of technology; they think in terms of the activity technology enables. In general, the Net Gen views the Internet as an access tool -- a medium for distribution of resources rather than a resource with limitations.¹⁷¹

Student satisfaction with online learning exemplifies our assumptions about online learning. Since Net Geners spend so much of their time online, it seems reasonable to expect that they would have a strong preference for Web-based courses. The reverse is actually true. Older students (Matures and Baby Boomers) are much more likely to be satisfied with fully Web-based courses than are traditional-age students. The reason relates to the Net Gen desire to be connected with people and to be social as well as their expectations of higher education. Traditional-age students often say they came to college to work with faculty and other students, not to interact with them online. Older learners tend to be less interested in the social aspects of learning; convenience and flexibility are much more important.

The implication is that colleges and universities should not assume that more technology is necessarily better. Technology that enables certain types of activities is likely to be appreciated. For example, wireless networking enables learner mobility and makes it possible to be constantly connected. The majority of wireless network use, however, may be outside the academic realm. Using technology to increase customization, convenience, and collaboration is well received; however, its integration into most courses or curricula is not as deep as into students' personal lives.

How Well Do We Know Our Students?

It is easy to assume that we understand our students, but there is often a difference in perspective between the Net Generation and faculty/administrators. As a result, it is important that schools, colleges and universities ask the right questions and not simply assume that the current student cohort is like we were. Important questions for colleges and universities to ask include the following.

- **Who are our learners?** Although the institution may have demographic information (date of birth, home town, gender, ethnicity, and so on), we may not understand how students view the world, what is important to them, or even how they learn best. It is increasingly important that colleges and universities engage learners in a dialogue to better understand their perspective. Institutions make massive investments (IT infrastructure, residence halls, recreational facilities) for the sake of meeting students' wants and needs; basing these decisions on assumptions is risky.
- **How are today's learners different from (or the same as) faculty/administrators?** Although the Net Generation may be different in many ways from Baby Boomers, some things stay the same. Students still come to college to meet people, to socialize, and to interact with faculty. Many of the measures of student engagement have consistently shown the importance of interaction with faculty and other students, as well as a supportive campus environment. Student preferences for how they receive information are likely

different, however -- they favor more graphics, a rapid pace, and immediate responses. If faculty and administrators can understand the factors that lead to student success -- which persist and which differ from their own college experience -- they will be able to more effectively develop programs and target investments.

- **What learning activities are most engaging for learners?** It isn't technology per se that makes learning engaging for the Net Gen; it is the learning activity. If today's students are experiential learners, lectures may not be an optimal learning environment. If they are community oriented, providing opportunities for peer-to-peer experiences or team projects may be preferable to individual activity. There are significant individual differences among learners, so no one-size-fits-all approach will be effective. Even so, learning science and the habits of the Net Generation provide some clues as to how we can improve learning.
- **Are there ways to use IT to make learning more successful?** Learning science indicates that successful learning is often active, social, and learner-centered. However, with the multiple responsibilities of faculty, staff, and administrators, as well as the large numbers of students most campuses serve, ensuring successful learning without the support of IT may be impossible. Individualization and customization are laudable goals for instruction; they are also time intensive. With the appropriate use of technology, learning can be made more active, social, and learner centered—but the uses of IT are driven by pedagogy, not technology.

Educating students is the primary goal of colleges and universities. However, reaching that goal depends on understanding those learners. Only by understanding the Net Generation can colleges and universities create learning environments that optimize their strengths and minimize their weaknesses. Technology has changed the Net Generation, just as it is now changing higher education.¹⁷²

Appendix 2 – Survey Instruments

Faculty and Education Partners

SOUTH COAST DISTANCE EDUCATION STRATEGIC PLANNING SURVEY Faculty and Education Partners

We seek your input for the South Coast Regional Distance Education (DE) Strategic Plan. This is one of three surveys. The other two are for students and for community stakeholders. Please respond to all questions. Keep in mind that this is a survey and not a test. There are no right or wrong answers. Use the space at the end of this survey for any additional comments. Individual responses will be kept confidential.

Why do we need your name? Two reasons: 1) the consultant may want to follow-up with you on your ideas and 2) to let you know you've won the PDA, if your name is drawn at random from all who submit surveys. Yes, we're giving away a PDA in a random drawing to one of the survey respondents!

Return the survey by May 20, 2005 to Karen Helland, SOCC Director of Distance and Community Education, 1988 Newmark Avenue, Coos Bay, Oregon 97420. eMail any additional comments before the due date to John Irwin, DE planning consultant, at jirwin@mind.net.

Questions? Contact Karen at 888 7212 or John at (541) 664-2456.

Thank you in advance for your investment in the future of DE on the south coast.

Name:	<input type="text"/>	Organization:	<input type="text"/>
Tel:	<input type="text"/>	Title:	<input type="text"/>
eMail:	<input type="text"/>		

-
- DE is a convenient, flexible way for students to take classes when they are separated by time and/or space from the instructor (modes of DE are: Online courses, two-way Videoconferencing (IPV) courses, Telecourses (video broadcasts), Teleweb (video broadcast plus online) courses and blended (IPV plus online) courses).
Strongly Agree Moderately Agree No Opinion Mildly Disagree Strongly Disagree
 - Current curriculum offerings cannot accommodate the growing college-level and life-long learning populations and enrollments, making more DE programs necessary.
Strongly Agree Moderately Agree No Opinion Mildly Disagree Strongly Disagree
 - Students are shopping for courses that meet their schedules and circumstances.
Strongly Agree Moderately Agree No Opinion Mildly Disagree Strongly Disagree
 - Student profiles are changing.
Strongly Agree Moderately Agree No Opinion Mildly Disagree Strongly Disagree
 - The percentage of adult, female, and minority students is increasing.
Strongly Agree Moderately Agree No Opinion Mildly Disagree Strongly Disagree
 - The role of faculty members in DE requires specialized skills and strategies.
Strongly Agree Moderately Agree No Opinion Mildly Disagree Strongly Disagree

7. The need for faculty development, support, and training is growing.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
8. Faculty tenure is being challenged, allowing for more non-traditional faculty roles in DE.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
9. Some faculty members are resisting technological course delivery.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
10. Faculty members require adjusted workloads and increased compensation for DE courses.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
11. The institutional landscape of education is changing: traditional schools and campuses are declining, for-profit institutions are growing, and public and private institutions are merging.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
12. Instruction is becoming more student-centered, non-linear, and self-directed.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
13. Academic emphasis is shifting from course-completion to competency (i.e., certification is becoming more preferable than a degree).
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
14. Education is becoming more seamless between high school, college, and further studies.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
15. The south coast has a good track record of partnering between the educational service district, the Oregon University System, regional workforce development, the community college and other regional education providers.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
16. Technological fluency is becoming a graduation requirement.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
17. Lifelong learning is becoming a competitive necessity.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
18. The Internet is becoming dominant among other DE media.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
19. The distinction between distance and local education is disappearing.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
20. The need for effective course-management systems and Web services is growing.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
21. Resources and materials are easily accessible to and usable by the students.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*

22. Clear standards are set for instructor response and availability (turn-around time for email, grades posted, etc.)

Strongly Agree Moderately Agree No Opinion Mildly Disagree Strongly Disagree

23. There is evidence of some effort to recognize the importance of American Disabilities Act (ADA) requirements.

Strongly Agree Moderately Agree No Opinion Mildly Disagree Strongly Disagree

24. Blended approaches, when available, are the most effective way to deliver DE (i.e., interactive video combined with online offerings).

Strongly Agree Moderately Agree No Opinion Mildly Disagree Strongly Disagree

25. Students are encouraged to evaluate courses on completion of the offering.

Strongly Agree Moderately Agree No Opinion Mildly Disagree Strongly Disagree

26. Students are most likely to access DE courses from: *check all that apply*

School computer labs	<input type="checkbox"/>	On campus (dormitories)	<input type="checkbox"/>
At home	<input type="checkbox"/>	Training centers	<input type="checkbox"/>
Public libraries	<input type="checkbox"/>	Other locations	<input type="checkbox"/>
			<input type="text" value="Specify:"/>

What are some suggestions for other regional locations to access DE courses?

27. Have you ever:

Taken an online DE class?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Developed an online DE class?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Delivered an online DE class?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>

Taken an IPV ¹ DE class?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Developed an IPV DE class?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Delivered an IPV DE class	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>

Taken a blended ² DE class?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Developed a blended DE class?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Delivered a blended DE class?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>

¹ IPV = two-way video

² Blended = online coursework combined with two-way video

28. What are the top three priorities you suggest for future development of DE on the south coast?

1.

2.

3.

29. What are some additional DE course offerings you would suggest?

30. The biggest opportunity for DE is...

31. The biggest barrier impeding DE is...

32. What technology tools or resources are you using currently? *Check all that apply*

	<i>Currently in use</i>	<i>Plan to use</i>	<i>No plans to use</i>	<i>Never heard of it</i>
Blackboard				
BrainPop				
Correspondence courses				
Cool School				
cu-HearMe				
DiscoverySchool.com				
MS-Excel				
Exploratorium				
Host/provider DE				
HowStuffWorks.com				
Imagination Place in KAHooTZ				
NASA online				

Personal Computers				
MS-PowerPoint presentations				
MS-Publisher				
Sesame Workshop				
Starboard				
SpaceWander				
Unitedstreaming				
Videos				
Two-way video conferencing				
Video editing software				
Web conferencing				
WebCT				
MS-Word or other word processor				
Not using any tools or resources				

Others?

33. What does your school or college need to get to the future for DE?

34. What do you need to move into the future with DE?

35. What online services do you need to support your DE efforts?

36. What online services do students need to support their DE efforts?

37. Please use this space and the other side of this page for additional comments or by May 20, 2005 email your additional comments to John Irwin at jirwin@mind.net.

Students
SOUTH COAST DISTANCE EDUCATION STRATEGIC PLANNING SURVEY
 Students

We seek your input for the South Coast Regional Distance Education (DE) Strategic Plan. This is one of three surveys. The other two are for educators and for community stakeholders. Please respond to all questions. Keep in mind that this is a survey and not a test. There are no right or wrong answers. Use the space at the end of this survey for any additional comments. Keep in mind that only select members of the core planning team will see individual responses. Individual responses will be kept confidential.

Why do we need your name? Two reasons: 1) the consultant may want to follow-up with you on your ideas 2) to let you know you've won the PDA, if your name is drawn at random from all who submit surveys. Yes, we're giving away a PDA in a random drawing to one of the survey respondents!

Return the survey by May 20, 2005 to Karen Helland, SOCC Director of Distance and Community Education, 1988 Newmark Avenue, Coos Bay, Oregon 97420. eMail any additional comments before the due date to John Irwin, DE planning consultant, at jirwin@mind.net.

Questions? Contact Karen at 888 7212 or John at (541) 664-2456.

Thank you in advance for your investment in the future of DE on the south coast.

<u>Name:</u>		<u>School/College</u>	
<u>Tel:</u>		<u>Home City (or nearest city):</u>	
<u>eMail:</u>			

1. DE is a convenient, flexible way for students to take classes when they are separated by time and/or space from the instructor (modes of DE are: Online courses, two-way Videoconferencing (IPV) courses, Telecourses (video broadcasts), Teleweb (video broadcast plus online) courses and blended (IPV plus online) courses).
 Strongly Agree Moderately Agree No Opinion Mildly Disagree Strongly Disagree
2. Students are shopping for courses that meet their schedules and circumstances.
 Strongly Agree Moderately Agree No Opinion Mildly Disagree Strongly Disagree
3. Instruction is becoming more student-centered, non-linear, and self-directed.
 Strongly Agree Moderately Agree No Opinion Mildly Disagree Strongly Disagree
4. Certification is becoming more preferable than a degree.
 Strongly Agree Moderately Agree No Opinion Mildly Disagree Strongly Disagree
5. Education is becoming more seamless between high school, college, and further studies.
 Strongly Agree Moderately Agree No Opinion Mildly Disagree Strongly Disagree
6. The south coast has a good track record of partnering between the educational service district, the Oregon University System, regional workforce development, the community college and other regional education providers.
 Strongly Agree Moderately Agree No Opinion Mildly Disagree Strongly Disagree

7. Technological fluency is becoming a graduation requirement.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
8. Lifelong learning is becoming a competitive necessity.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
9. Online offerings clearly state minimum technology requirements, minimum student skills, and, if applicable, prerequisite knowledge in the discipline.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
10. The learning objectives of courses are clearly stated and understandable to the student.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
11. Resources and materials are easily accessible to and usable by the students.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
12. The requirements for course interaction are clearly stated (for example, turn-around time for email, grades posted, etc.). The course design provides a variety of opportunities for interaction between instructor and learner.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
13. All technologies required for a course are either provided or easily downloadable.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
14. Instructions on how to access resources at a distance are sufficient and easy to understand.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
15. The course instructions state or link to a clear description of the technical support offered. Course instructions state or link to an explanation as to how the school or college's academic support system can assist the student in effectively using the resources provided.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
16. Course instructions state or link to tutorials and resources that answer basic questions related to research, writing, technology, etc.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
17. Blended approaches, when available, are the most effective way to deliver DE (i.e., interactive video combined with online offerings).
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
18. Students are encouraged to evaluate courses on completion of the offering.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
19. Students are most likely to access DE courses from: *check all that apply*

School computer labs	<input type="checkbox"/>	On campus (dormitories)	<input type="checkbox"/>
At home	<input type="checkbox"/>	Training centers	<input type="checkbox"/>
Public libraries	<input type="checkbox"/>	Other locations	<input type="checkbox"/>
			<input type="text" value="Specify:"/>

What are some suggestions for other regional locations to access DE courses?

20. Have you ever:

Taken an online DE class?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Taken an IPV ¹ DE class?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Taken a blended ² DE class?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>

¹ IPV = two-way video

² Blended = online coursework combined with two-way video

21. What are the top three priorities you suggest for future development of DE on the south coast?

- 1.
- 2.
- 3.

22. What are some additional DE course offerings you would suggest?

23. What are the DE courses you have taken over the past 2 years?

24. The biggest opportunity for DE is...

25. The biggest barrier impeding DE is...

26. What does your school or college need to get to the future for DE?

27. What do you need to move into the future with DE?

28. What online services do students need to support their DE efforts?

29. I have access to a PC with a high-speed Internet connection at: *check all that apply*

Home Public library Other: *specify*
School/college Community Center

My home Internet access is a dial-up connection: Yes No

30. Please use the space on this page for additional comments or by May 20, 2005 email your additional comments to John Irwin at jirwin@mind.net.

Regional Stakeholders

SOUTH COAST DISTANCE EDUCATION STRATEGIC PLANNING SURVEY Regional Stakeholders

We seek your input for the South Coast Regional Distance Education (DE) Strategic Plan. This is one of three surveys. The other two are for students and educators. Please respond to all questions. Keep in mind that this is a survey and not a test. There are no right or wrong answers. Use the space at the end of this survey for any additional comments. Keep in mind that only select members of the core planning team will see individual responses. Individual responses will be kept confidential.

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Questions? Contact Karen at 888 7212 or John at (541) 664-2456.

Thank you in advance for your investment in the future of DE on the south coast.

Name:		Organization:	
Tel:		Title:	
eMail:		Home City (or nearest city)	

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Strongly Agree Moderately Agree No Opinion Mildly Disagree Strongly Disagree
- Current curriculum offerings cannot accommodate the growing college-level and life-long learning populations and enrollments, making more DE programs necessary.
Strongly Agree Moderately Agree No Opinion Mildly Disagree Strongly Disagree
- Students are shopping for courses that meet their schedules and circumstances.
Strongly Agree Moderately Agree No Opinion Mildly Disagree Strongly Disagree
- Student profiles are changing.
Strongly Agree Moderately Agree No Opinion Mildly Disagree Strongly Disagree
- The percentage of adult, female, and minority students is increasing.
Strongly Agree Moderately Agree No Opinion Mildly Disagree Strongly Disagree
- The need for faculty development, support, and training is growing.
Strongly Agree Moderately Agree No Opinion Mildly Disagree Strongly Disagree

7. Some faculty members are resisting technological course delivery.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
8. Faculty members require adjusted workloads and increased compensation for DE courses.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
9. The institutional landscape of education is changing: traditional schools and campuses are declining, for-profit institutions are growing, and public and private institutions are merging.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
10. Instruction is becoming more student-centered, non-linear, and self-directed.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
11. Academic emphasis is shifting from course-completion to competency (i.e., certification is becoming more preferable than a degree).
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
12. Education is becoming more seamless between high school, college, and further studies.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
13. The south coast has a good track record of partnering between the educational service district, the Oregon University System, regional workforce development, the community college and other regional education providers.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
14. Technological fluency is becoming a graduation requirement.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
15. Lifelong learning is becoming a competitive necessity.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
16. The distinction between distance and local education is disappearing.
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
17. Blended approaches, when available, are the most effective way to deliver DE (i.e., interactive video combined with online offerings).
Strongly Agree *Moderately Agree* *No Opinion* *Mildly Disagree* *Strongly Disagree*
18. Students are most likely to access DE courses from: *check all that apply*

School computer labs	<input type="checkbox"/>	On campus (dormitories)	<input type="checkbox"/>
At home	<input type="checkbox"/>	Training centers	<input type="checkbox"/>
Public libraries	<input type="checkbox"/>	Other locations	<input type="checkbox"/>
			<input type="text" value="Specify:"/>

What are some suggestions for other regional locations to access DE courses?

19. Have you ever:

Taken an online DE class?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Taken an IPV ¹ DE class?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
Taken a blended ² DE class?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>

¹ IPV = two-way video

² Blended = online coursework combined with two-way video

20. What are the top three priorities you suggest for future development of DE on the south coast?

1.

2.

3.

21. What are some additional DE course offerings you would suggest?

22. The biggest opportunity for DE is...

23. The biggest barrier impeding DE is...

24. Please use this space and the other side of this page for additional comments or by May 20, 2005 email your additional comments to John Irwin at jirwin@mind.net.

Appendix 3 – Recommended Reading and Resources

The endnotes contain a vast amount of reference material. In addition to those references here is some additional food for thought. By no means is this a complete list of available resources.

Educational Gaming

Games-to-Teach

www.educationarcade.mit.edu/gtt/

In its first year, the Games-to-Teach Project designed a set of ten conceptual frameworks of educational games in math, science, engineering, social science, and humanities. The goal of this exercise was to develop a vision of how games could be used to support learning, as well as to research the issues behind developing and marketing next-generational games.

Room 130

www.labweb.education.wisc.edu/room130/

Room 130 is an interdisciplinary faculty, student, and industry consortium devoted to research in the areas of digital games, game design, and digital cultures. Room 130 seeks to provide empirical, investigative data, as well as theoretical accounts on the nature of learning and literacy in these contexts from the perspectives of humanities, education technology, second language acquisition, cognitive psychology, learning sciences, linguistics, and critical pedagogy.

Unfiction: Alternate Reality Gaming

www.unfiction.com

Alternate Reality Gaming (also known as beasting, unfiction, or immersive fiction) is an interactive fusion of creative writing, puzzle-solving, and team-building, with a dose of role playing thrown in. It utilizes several forms of media in order to pass clues to the players, who solve puzzles in order to win pieces of the story being played out. Clues can be passed through web pages, email, voicemail, snail mail, television advertisements, movie posters, campus billboards, newspaper classifieds, and other means.

The Education Arcade

www.educationarcade.org

A consortium of international game designers, publishers, scholars, educators, and policy makers, the Education Arcade seeks to demonstrate the social, cultural, and educational potentials of games by initiating new game development projects, coordinating interdisciplinary research efforts, and informing public conversations about the broader and sometimes unexpected uses of this emerging art form in education.

Game Culture & Technology Lab

www.proxy.arts.uci.edu/gamelab/

The mission of the Game Culture & Technology Lab is to expand the notion of how game metaphors, design principles, and technologies can be utilized for alternative content and context delivery. The Lab's approach combines theory and practice, science and art, education and entertainment, to create an environment that supports diverse forms of expression in a wide range of applications. The Game Lab brings together interdisciplinary faculty from both the UC Irvine and UC San Diego campuses.

Michael Schrage on Innovation

www.acm.org/ubiquity/interviews/v5i39_schrage.html

Ricardian Explorer

www.wesleyan.edu/re/

Ricardian Explorer is an interactive computer game that simulates the functioning of a simple model of international trade. Designed to complement courses in international trade, it can also be used in introductory and intermediate microeconomics courses and as a research tool for experimental economists to collect data for their studies. To facilitate the use of the game in an instructional sequence the site will provide information on how to set up different games, instructor and player manuals, and utilities for post-game data analysis.

Virtual Learning Arcade

www.bized.ac.uk/virtual/vla/

The Virtual Learning Arcade (VLA) provides interactive online models and simulations for economics and business teachers, lecturers and students. The simulations also have support materials that have been written to enhance their educational value. These include explanations of relevant theories, interactive worksheets, definitions and guidelines on using the models.

Extended Learning

The following links provide examples of extended learning applications or programs.

The Distributed Learning Initiative, University of Central Florida

www.pegasus.cc.ucf.edu/~rite/ImpactEvaluation.html

The University of Central Florida has had an established extended learning component (the Distributed Learning Initiative) since fall of 1996. The results of ongoing evaluation of the courses are available at the URL above. The Virtual Campus (distrib.ucf.edu/) offers extended learning courses that integrate a variety of communications tools with hybrid instruction.

Hybrid Course Website, University of Wisconsin at Milwaukee

www.uwm.edu/Dept/LTC/hybrid/

The University of Wisconsin at Milwaukee has received a grant to help faculty develop hybrid courses. A specially designed website explains what hybrid courses are and how to prepare to develop and teach them.

Rick Effland's Blog

www.homepage.mac.com/reffland/blogwavestudio/index.html

Richard Effland at Maricopa Community Colleges is using a blog to get his students to reflect and write about issues in the study of what makes us human. Now in its second generation (and still evolving), the blog serves as a database of ideas upon which students construct higher-level concepts.

New Writing Course, Bemidji State University

www.cal.bemidjistate.edu/english/blikis.html

This course in the English department teaches “online writing” using blogs and wikis. Students create a blog or wiki, maintain it over a semester, and analyze the experience.

Apple Computer's Higher Education Discovery Tour

www.ali.apple.com/ali_sites/ali_tours/hed.html

This site contains resources and suggestions for using technology to extend traditional classroom experiences.

Blogger

www.new.blogger.com

Blogger (owned by Google) is a popular blogging tool. Designed to make web publishing easy and instantaneous, Blogger focuses on “helping people have their own voice on the web and organizing the world's information from a personal perspective.”

Guidelines for Good Practice: Technology-Mediated Instruction

www.academicssenate.cc.ca.us/Publications/Papers/tech_mediated_instruction.html

Published by the Academic Senate for California Community Colleges, this article presents some suggestions for managing extended learning experiences.

Hybrid Teaching Seeks to End the Divide Between Traditional and Online Instruction

www.chronicle.com/free/v48/i28/28a03301.htm

(Jeffrey R. Young, in *The Chronicle of Higher Education*: March 22, 2002) This article provides an overview of hybrid learning trends at selected institutions, including Pennsylvania State University, Fairleigh Dickinson University, Harvard Extension Schools, Maricopa Community Colleges, the University of Wisconsin at Milwaukee, and Ohio State University.

Instant Messaging—Collaborative Tool or Educator's Nightmare?

www.unb.ca/naweb/proceedings/2003/PaperFarmer.html

(Robert Farmer, Mount Saint Vincent University, Canada, 2003) This paper discusses instant messaging among students and in industry, including the results of a student survey on technology usage and an in-class instant messaging trial.

Netcraft: Of Blogs and Wikis

www.news.netcraft.com/archives/2004/03/26/of_blogs_and_wikis.html

This brief article describes blogs and wikis and links to examples.

What is Hybrid Learning?

www.norquest.ab.ca/distance/hybridlearning.htm

NorQuest College provides an introduction to the concept of hybrid learning.

Intelligent Searching

ACM Digital Library

www.portal.acm.org/dl.cfm

The ACM Digital Library offers a service to its subscribers called My Binders, in which users can save found articles. Articles can be added manually, by means of a saved search, or by an Agent which can periodically run the search and add any new findings.

Blinkx

www.blinkx.com

Free-to-download, Blinkx automatically and intelligently links to relevant information anywhere and in any format: on the Web, in the news, in the user's email archives, or on his or her hard drive.

The Open Video Project

www.open-video.org/project_info.php

The purpose of the Open Video Project is to collect and make available a distributed repository of digitized video content on a wide range of subjects for the digital video, multimedia retrieval, digital library, and other research communities. It is hosted as one of the first channels of the Internet 2 Distributed Storage Infrastructure Initiative, a project that supports distributed repository hosting for research and education in the Internet 2 community.

StumbleUpon

www.stumbleupon.com

This free tool creates a custom toolbar that allows users to find, review, and share interesting web pages. Users choose pages to recommend, and recommendations are sent to others based on personal preferences.

Browsing Art Collections, Bit by Bit
www.coe.berkeley.edu/labnotes/1002/forsyth.html

Browsing a large museum of fine art can be an overwhelming experience. On the other hand, losing yourself in the galleries can be rewarding. But if you're seeking a particular subject matter – say, representations of horses – browsing is like searching for a needle in a haystack. To help navigate the sprawling art landscape, UC Berkeley Computer Science professor David Forsyth and his graduate students are integrating computer vision technology with natural language processing to create visual summaries of massive art collections available online.

Dashboard
www.nat.org/dashboard/

As you go about your work, Dashboard proactively finds documents, links, bookmarks, and other files related to whatever you happen to be doing, and displays these in a friendly way, keeping relevant files at your fingertips.

Gnooks.com
www.gnooks.com

Discover new writers (or movies or music) you might like, discuss your favorites, and “travel the map of literature” with Gnooks.com. Type in the name of an author you like to get suggestions for similar authors. The suggestions don't appear as a list of names; instead, your author's name appears in the middle of the page with related authors' names ranged around it, floating closer or farther away depending on how similar they are.

Refining the Search Engine
www.acm.org/ubiquity/interviews/v5i29_jain.html

Why Use A9.com?
www.a9.com/-/company/whatsCool.jsp

A9.com is a powerful search tool designed to make searching and finding easier. This page describes the features available in A9 and is an interesting read in terms of finding out what's possible with advanced searches.

K-12 and Beyond

Astro-Venture
<http://quest.arc.nasa.gov/projects/astrobiology/astroventure/avhome.html>

NASA's site for kids. Design a habitable planet. Train in geology, biology, atmospheric science. Middle grades

Byrd Baylor Links for Primary Grades
<http://falcon.jmu.edu/~ramseyil/baylor.htm>

Links, lessons and activities for teachers and kids relating to Native American author Byrd Baylor.

Hoax? Scholarly Research? Personal Opinion? You Decide!

<http://www.library.ucla.edu/libraries/college/help/hoax/index.htm>

Class online assignment to teach looking for evidence and evaluation of information. Three sections: Authority and Accuracy, Advocacy and Objectivity, and Currency and Coverage. In the era of all the CSI spin-offs, teach students to dig deep. Grades 9 -12

Kids Care

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

Service projects for kids of all ages. Middle grades

My Days at Frog and Toad Road

<http://myschoolonline.com/site/0,1876,2123-126557-2-13454,00.html>

Teacher Lanise Jacoby shares what's going on in her second grade classroom, as well as student projects and lessons. An award-winning site. Grade 2

The High School Hub

<http://highschoolhub.org/hub/hub.cfm>

High School Hub

Virtual Tour of the Human Body

http://vilenski.org/science/humanbody/hb_intro.html

See it to believe it! Great intro animation. Divided into body systems. Middle grades

Social Networks & Knowledge Webs

The Composers of Internet2, Wheaton College

www.wheatoncollege.edu/it_s/internet2/C12/

Wheaton College has used Internet2 for collaborative activities in music and French. The Composers of Internet2 introduces a musical composition competition as the venue for putting young student composers in touch with a professional community of practice using social networking.

CAS: Chemical Abstracts Service

www.cas.org

CAS is a knowledge web for the chemical (and other) sciences, gathering published research from journal and patent literature from around the world.

Emerson College's Learning Portals Project

www.institute.emerson.edu/learningportal

Emerson College has embarked on a multi-year project to design and build an interactive and customizable web portal that will support college-wide initiatives in multimodal literacy and integrative learning. Over the next three years, the College will develop a “toolkit” of proprietary, non-proprietary, and locally developed Web applications to support teaching and learning and to extend and make more coherent the interactive resources available to faculty and students.

MERLOT’s Peer Review Process

www.merlot.org

The Multimedia Educational Resource for Learning and Online Teaching (MERLOT) project includes peer-review boards whose work is facilitated by a custom-built peer review workspace within MERLOT. The collaborative workspace enables members of the review boards to share comments and manage the process of working together on several reviews at once.

Wikipedia

www.wikipedia.org

The Wikipedia, an online encyclopedia featuring over 200,000 articles (in early 2004), is a living example of a wiki. Although anyone can edit any article, the information tends to be current, accurate, and on-topic.

Collaborative Learning Environments Sourcebook

www.criticalmethods.org/collab/v.mv?d=1_1

A sourcebook for academics and students who want to develop collaborative learning environments (or communities of practice), this site is itself a knowledge web about creating knowledge webs.

James Burke’s KnowledgeWeb Project

www.k-web.org/index.html

This project, a particular kind of knowledge web, seeks to present information in “a highly interconnected, holistic way that makes it possible to follow an almost infinite number of paths of exploration among people, places, things, and events.”

Neighbornodes

www.neighbornode.net

Neighbornodes are group message boards on wireless nodes, placed in residential areas and open to the public. These nodes transmit signal to about 300 feet, so everyone within that range has access to the board and can read and post to it. This means that with a Neighbornode you can broadcast a message to roughly everyone whose apartment window is within 300 feet of yours (and has line of sight), and they can broadcast messages back to you. Boards are only accessible from computers that go through the local node. Additionally, Neighbornodes are linked together,

making up a node network to enable the passing of news and information on a street-by-street basis throughout the wider community.

Ubiquitous Wireless

CER Mobile Computer Classroom Enhances Biology Labs

www.cer.jhu.edu

Students at Johns Hopkins University take advantage of wireless connectivity to complete online interactive exercises during biology labs.

Handheld Devices for Ubiquitous Learning

www.gseacademic.harvard.edu/~hdul/whd-overview.htm

An ongoing project at Harvard University explores the possibilities of ubiquitous learning.

Ubiquitous Wireless on Campus: Dartmouth College

www.dartmouth.edu/comp/resources/network/wireless/technical.html

Dartmouth has offered wireless access on campus since 2000. The wireless network itself consists of over 475 access points in 160+ buildings, providing nearly seamless coverage across the 200-acre campus. Articles about the implementation and management of the network are available.

Wireless Instant Polling, University of Maryland, Baltimore County

www.aspl.umbc.edu/newmedia/studio/stream/qtdetail.cfm?recordID=328

UMBC professors have been experimenting with instant student response systems from eInstruction and Turning Technologies, respectively. In this online presentation they share lessons learned and demonstrate the Turning Technologies product.

IEEE 802.16 and WiMAX: Broadband Wireless Access for Everyone

www.techonline.com/community/related_content/30627

This Intel white paper illustrates the properties of WiMAX from an industry perspective.
Pedagogy and Wireless Computing

www.cet.middlebury.edu/bryan/wireless/

This workshop explores the pedagogy of mobile, wireless computing in the liberal arts setting. As college campuses set up wireless networks, and the number and variety of networked devices increase, how do we best teach and learn in this environment? We describe the evolving world of wireless networks, including 802.11x(WiFi), Bluetooth, and cellular. Additionally, we examine how devices such as Personal Digital Assistants (PDAs), laptops, tablets, and cell phones are being leveraged to create a new ubiquitous computing environment.

Unlocking the Learning Value of Wireless Mobile Devices

www.blackwell-synergy.com/links/doi/10.1046/j.0266-4909.2003.00028.x/full/

This paper examines challenges, research needs, and implementation requirements for wireless mobile devices used in education.

The WiMAX Forum

www.wimaxforum.org/home

The WiMAX Forum is an industry-led, non-profit corporation formed to promote and certify compatibility and interoperability of broadband wireless products.

WWiSE Words on 802.11n

www.wwise.org

Industry leaders Airgo, Bermai, Broadcom, Conexant, STMicroelectronics and Texas Instruments have proposed a standard for 802.11 implementations which achieves a 540 Mbps data rate, meets stringent world-wide regulatory requirements and provides important legacy interoperability with existing Wi-Fi devices.

Online Educational Tools and Resources

Electronic Campus

The *Electronic Campus* is a student services website representing the colleges and universities of the South.

Electronic Campus was launched in January, 1998 as an "electronic marketplace" of online courses and programs from the South's colleges and universities. The *Electronic Campus* was designed to provide learning opportunities from accredited colleges and universities that offered courses and programs that exceed Southern regional Education Board's (SREB) *Principles of Good Practice*. By doing this, learners could be assured of the quality and integrity of the courses and programs available in the *Electronic Campus*, that comparable information would be provided to help learners in making decisions that best met their needs, and that learners could quickly and easily search the large database of course and program offerings. Those qualities have been retained since 1998.

The expanded *Electronic Campus* is a student services web site representing the public and independent colleges and universities in the SREB states. The *Electronic Campus* is a comprehensive source for information about higher education opportunities in the South whether traditional campus study or e-learning. It is a gateway to e-learning opportunities and online services designed to meet the unique needs of adult learners wishing to start, continue, or complete their education. It provides a simpler, friendlier one-stop place for adults to learn about and understand educational opportunities, to select campuses and/or e-learning opportunities that best match their needs, and to apply online and enroll in courses or programs. In addition, the

Electronic Campus is an online resource for traditional-aged students with links to planning for, exploring, and applying online to hundreds of colleges and universities.

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

United States Distance Learning Association

The principle objective of the association is to serve the needs of the distance learning community by providing advocacy, information, networking and opportunity. The association provides national distance learning leadership by focusing on issues and legislation impacting the distance learning community and its varied constituencies.

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

World Lecture Hall

World Lecture Hall publishes links to pages created by faculty worldwide who are using the Web to deliver course materials in any language. Courses on WLH are offered for credit only through their accredited universities, distance learning programs, or online degrees programs; their link to WLH is strictly as free courseware. It doesn't cost anything to browse WLH or link to any of the sites posted on WLH, but WLH provides a free service for reference and not credit. If interested in cost, enrollment or credit concerning a course, contact the administrator or professor of the particular course site, or visit WLH's useful links page for more information about online courses. WLH contains links to course materials for university-level courses. Some, though not all, of these courses are offered entirely over the Internet. Some, though not all, offer college credit through distance learning. All are courses offered at accredited colleges and universities around the world, and all course materials reachable through WLH are free and publicly available.

<http://web.austin.utexas.edu/wlh/index.cfm>

Recommended Readings

“Building a Nation of Learners: The Need for Changes in Teaching and Learning to Meet Global Challenges,” Business-Higher Education Forum (BHEF),

http://www.bhef.com/media/building_nation.cfm, retrieved: June 19, 2003

“Effective Access: Teachers’ use of digital resources in STEM teaching,” Katherine Hanson and Bethany Carlson, The Gender, Diversities, and Technology Institute at Education Development Center, Inc. (EDC), May 2005, <http://eec.edc.org/Products/titleview.asp?titleid=1686>, retrieved: June 6, 2005

“Quality Education Model – Final Report,” Oregon Department of Education, December 2004, <http://www.ode.state.or.us>, retrieved: July 5, 2005

“Rethinking Teaching for the Knowledge Society,” Diana Laurillard, *Educause Review*, Vol. 37, No. 1, January/February, 2002, pp. 16–25,

<http://www.educause.edu/ir/library/pdf/FFPIU017.pdf>, retrieved: July 7, 2005

“Successes and Failures in the Marriage of Higher Education and IT,” Edward L. Ayers and Charles M. Grisham, Educause, <http://www.educause.edu/ir/library/pdf/FFPIU033.pdf>, retrieved: July 7, 2005

“Theory and Practice of Online Learning,” Editors: Terry Anderson & Fathi Elloumi, 2004, www.cde.athabascau.ca/online_book, retrieved: December 15, 2004

“Why Rural Matters 2005: The facts about rural education in the 50 states,” Jerry Johnson, Ed.D, State and Regional Policy Studies Manager, Marty Strange, Policy Director, Rural School and Community Trust, May 2005, www.ruraledu.org, retrieved: June 20, 2005

Appendix 4 – Are Distance Learning Courses for Me?¹⁷³

How well would distance learning courses fit your circumstances and lifestyle? To find out, complete the survey at http://cf.lbcc.cc.or.us/disted/de_survey.cfm. Pick one answer for each question. When finished, click the *Send Survey* button at the bottom of the page and the results will be automatically evaluated.

The thirteen questions in the survey reflect some of the realities about taking distance learning courses.

1. My need to take this course now is:

High - I need it immediately for degree, job, or another important reason.

Moderate - I could take it on campus later or substitute another course.

Low - It's a personal interest that could be postponed.

2. My favorite type of class would have me:

watching a performance.

doing the activity myself.

hearing a lecture.

3. I would classify myself as someone who:

Often gets things done ahead of time.

Needs reminding to get things done on time.

Put things off until the last minute.

4. When I'm in a face-to-face class of about 20 people,

I always participate in classroom discussion.

I may participate in classroom discussion once in a while.

I try to avoid participating in classroom discussion.

5. When an instructor hands out directions for an assignment, I prefer:

Figuring out the instructions myself.

Trying to follow the directions on my own, then asking for help as needed.

Having the instructions explained to me.

6. I need faculty comments on my assignments:

Within a few weeks, so I can review what I did.

Within a few days, or I forget what I did.

Right away, or I get very frustrated.

7. Considering my professional and personal schedule, the amount of time I have to work on distance education courses is:

More than enough for a campus class or distance education course.

About the same as for a class on campus.

Less than for a class on campus.

8. When I am asked to use VCRs, computers, voice mail, or other technologies new to me:

I immediately try out the new tool.

I try to read all the instructions before I start working with the new tool.

I prefer to have someone right there with me when I actually use the new tool.

9. As a reader, I would classify myself as:

A very strong reader with an extensive vocabulary. I usually understand the text without help.

A good reader, but occasionally I have questions after I read something.

Actually, I'd rather not do much reading. I sometimes need help to understand the text.

10. How do you prefer to spend class time?

Working independently on my own projects.

Listening to lecture and taking notes.

Working in small groups of two or three other students.

11. How do you like to learn about new ideas? Check the best response.

On my own, reflecting on the information previously given.

In a small group, where we can share ideas together in discussions.

Working on a hands on activity in a face-to-face class to apply ideas immediately.

12. Going to campus to take exams or complete work:

Is easy for me.

Can be difficult at times.

Is very difficult.

Appendix 5 – Distance Education Websites in Oregon

Colleges

Oregon Colleges Online

<http://oregoncollegesonline.com/>

Oregon Colleges Online is where you can explore all of the Oregon Community Colleges distance learning classes in one place. You can find information here about getting a two-year degree -- all through distance learning. Here is where you can connect, too, to the services designed to help distance learning students -- tutoring, advising and library research.

If you have a business or if you work with a school you may want to take advantage of the teleconferencing services offered by the community colleges. We can connect you for meetings, training sessions, symposia or whenever you need to bring people together.

There are two different means in which students can enroll for distance education courses: One is through a *provider college*, and the other is through a *host college*.

If a school were a *provider college*, then that school would be responsible for delivering the instruction. If a student wanted to take a course offered by a provider college, the student would have to enroll through the provider's school.

If a school were a *host college*, then that school would not be responsible for delivering the instruction. Instead, that school would have the ability to offer the course to the students that are enrolled through their school. The class would be taught at another school, but the student would receive credits through the host school.

For example, if Chemeketa were the provider for a specific course, then the student would have to enroll through Chemeketa in order to take the course. But, if that same course was being offered by a host college at the same time, for example through Oregon Coast, then the student would have the option of enrolling either through the provider college (Chemeketa) or through the host college (Oregon Coast).

Member Community Colleges:

Blue Mountain	Mt. Hood
Central Oregon	Oregon Coast
Chemeketa	Portland
Clackamas	Rogue
Clatsop	Southwestern
Columbia Gorge	Tillamook Bay
Klamath	Treasure Valley
Lane	Umpqua
Linn-Benton	

K-12 Online Schools

Here we present a sampler of other K-12 DE related offerings.

COOLSchool

<http://www.coolschool.k12.or.us/>

COOLSchool is one of Oregon's valued providers of online education creating opportunities to help districts get what they want in order to meet their student and program needs.

All COOLSchool courses are: useful for complementing local curriculum, accredited by the Northwest Association of Schools and Colleges and Universities, aligned with Oregon Content Standards, and taught by licensed teachers.

COOLSchool partnership is a joint effort by local schools and COOLSchool to help students find success. COOLSchool asks that participating districts provide on-site Internet access, a district contact, student mentor support, and a commitment to use electronic learning as an alternative, while COOLSchool provides each participating district with: a virtual Web address for your district, course-selection database for listing course summaries, on-site and Web-based training for student support staff, materials, including a catalog of selected course offerings and allows for FTE and course-content flexibility.

Schools or districts electing to pay for designated COOLSchool courses must pay via purchase order. (Important note: after paying for a COOLSchool course, the district can claim the student in its ADM.) If the school or district does not cover the cost of a given course, that cost is borne by the parent or guardian of the registering student. Payment by private parties can be made by credit card, check, or money order, and must be received within seven days of the registration date

Payment for one regular education course (0.5 credits) for one student for one semester is \$295 for Oregon students and \$345 for out-of-state and out-of-country students. (A district paying for a student's COOLSchool course can claim that student in its ADM.) COOLSchool also offers discounts to districts and other educational groups when they register 5 or more students.

COOLSchool is accredited by the National Association of Accredited Schools. However, each individual school district has the right to select the credit they will accept. Prior to course registration, students should check with their school regarding acceptance of credit and whether the course that interests them will meet their school's graduation requirements. Schools wishing to make a credit analysis on a given course will find the information they need on that course's Web site.

Uses the e-Educator platform by Ucompass (<http://www.ucompass.com>).

Corvallis School District

<http://www2.corvallis.k12.or.us/corvallisonline/>

Corvallis Online, in collaboration with OSU K-12 Online, seeks to provide students with online learning opportunities as an alternative to the traditional school program and to earn Corvallis School District credit. The goal is to allow students flexibility in their learning environment and to provide the option of extending their school day beyond regular school hours and the classroom setting. Courses are taught by certified teachers and built around state content standards. Each course is designed to engage students in their learning through meaningful and relevant curriculum. Teachers provide students with instructional support and feedback to meet their individual needs through the use of email, telephone, or face-to-face conferencing if necessary.

Moshi Moshi, Hola Hola

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

The Moshi Moshi and Hola Hola Projects of Portland Public Schools use cable broadcast/video delivery and internet technology productively to help children learn and acquire another language and culture. The Project develops, produces, and delivers Japanese and Spanish language and culture instruction for nearly 20,000 elementary students and their teachers each day through televised instruction. Interactive activities on the project website provide students with additional practice and reinforcement. Teachers can log into the website to download facilitator materials as well as tune in three days each week for broadcast professional development classes. The Project is proud to celebrate eight years in bringing innovative Japanese and Spanish language and culture lessons to public, private and home-schooled elementary students. Moshi Moshi and Hola Hola are helping to prepare Oregon's children for the global society of the 21st century.

Portland State University Independent Study Program

<http://www.istudy.pdx.edu/>

The High School Independent Study program at Portland State University is the longest standing alternative, distance education opportunity for Oregon high school students. The program has 40 fully accredited high school courses taught by certified Oregon high school teachers. Students may study at their own pace and take up to 18 months to complete a course. PSU is in the process of converting all of its independent study courses to the Web, although a few courses are still correspondence-based, with materials delivered by regular mail. Assignments may be mailed, or in many cases, e-mailed to instructors. PSU also offers approximately 60 college-level independent study courses, some of which are Web-based.

Salem-Keizer School District 24-J

<http://skonline.org/>

An Internet curriculum-delivery program, SK Online is an alternative program of the Salem-Keizer School District 24-J for centrally delivering Web-based curriculum to students living in and around the Salem-Keizer Public School District. The program is targeted to any school-aged student who has a need for acceleration or remediation, is credit deficient, has scheduling conflicts in a traditional school setting, has limited English proficiency, or is home schooled. In addition, the online learning model accommodates students who are medically fragile, pregnant

and parenting, expelled, or in diversion. Courses are geared to young people whose learning style is better matched to the individual, self-paced nature of online learning.

Apex Learning (<http://apexlearning.com/default.asp>), BoxerMath (<http://www.boxermath.com/>) and STARS (<http://www.behavioranalysts.com>) are the online learning tools.

Universities

This section contains a sampler of universities in Oregon with DE related components.

Concordia University. Portland

<http://www.cu-portland.edu/online/>

A variety of online courses are offered. Classes in the online M.Ed. in Educational Leadership are designed for asynchronous delivery. The same faculty who teach in the on-campus classrooms will teach the courses in the online program. Online offerings use the WebCT platform.

Ecampus - OSU Extended Campus

<http://ecampus.oregonstate.edu/>

Oregon State is a major research university located in the heart of Oregon's Willamette Valley. Through its "Ecampus," OSU Extended Campus is bringing quality educational opportunities to you.

“The number of students taking courses through OSU Extended Campus, the award-winning distance education program at Oregon State University, has almost tripled in the past five years - along with a surge in course offerings, new degrees, an influx of students from all over the world, and a fundamental change in the nature of higher education.

The traditional college student, educators say, is becoming a minority.

And in few places is that trend more evident than the enormous recent growth and interest in distance education, especially at OSU. It is making college accessible to new generations of students.

‘It's now estimated that more than 75 percent of the students in higher education in the United States are those referred to as non-traditional, something other than the traditional 18-22 year-old resident student,’ said Bill McCaughan, dean of OSU Extended Campus.

Dramatic improvements have taken place in the methods used to deliver distance education, says McCaughan, and many students indicate that online courses have provided them a more personal experience than their face-to-face classes. Distance education can provide a good fit for working students, people who hope to finish a degree or earn a second one, obtain a specialized certificate to improve career options, older-than-average students, or those who can't find the programs they need in their local area.

"Perhaps the most compelling aspect of distance education is that distance simply doesn't mean much," McCaughan said. "It doesn't make much difference whether a program is 30 miles away or 3,000 miles away. What students want are quality educational programs that meet their needs."¹⁷⁴

Oregon Institute of Technology

<http://www.oit.edu/?method=dist>

Currently the following programs are offered:

Bachelor of Science degree-completion programs in:

Dental Hygiene
Echocardiography
Radiologic Science
Respiratory Care
Vascular Technology

Minors in:

Business
Information Technology

Specialization in:

Picture Archiving and Communication Systems

OIT also offers online sections of Dental Health Hygiene and Medical Imaging Technology to community college students applying for their professional programs, and a wide variety of online courses for the general public.

The instructional tools provided by WebCT make it possible for the instructor to organize and disseminate course materials, exams and grades in a secure environment. Interactive tools encourage communication between the instructor and students as well as among the students themselves.

Southern Oregon University

<http://www.sou.edu/ecp/distlearn/>

Each year more people are completing degrees and taking classes via Southern Oregon University's distance delivery technologies. These technologies include interactive television, the Web, and computer-based independent study.

SISWeb is a secure, interactive web application that allows you to easily view your own student data: Display Grades, Display Transcript, Register for Classes, View Account Information, View Holds, View/Update Address, View Student's Schedule, and Make Credit Card Payments. BlackBoard is used for the courses. Groupwise is used for email.

Online Courses include Business or Criminology Degree Completion Online, Master of Education, Early Childhood Development, Part Time MAT (Master of Arts in Teaching), CREADE: Reading & Literacy courses for teachers, leading to Reading Endorsement or

Certificate of Competency [courses may apply toward a master's degree with advisor's approval], Continuing Teaching License and Master of Public Health. RNs can take courses using a variety of formats including online, attending two-day intensives, by challenge exam and portfolio, and on campus.

University of Oregon, Eugene

<http://de.uoregon.edu/>

The University of Oregon offers a variety of Distance Education courses designed to allow admitted and non-admitted students the flexibility of completing course work outside the traditional classroom. E-mail and access to the Internet are required for all courses. Coursework should be completed within the scheduled term. Blackboard is the online delivery platform.

The university provides a full range of consulting services to faculty. The Center for Educational Technologies consulting (<http://libweb.uoregon.edu/cet/consulting/>) provides personal consulting support for UO Faculty and GTFs in the use of instructional technology and multimedia. The University of Oregon does not currently offer entire undergraduate degrees or "degree-completion" (2 + 2) sequences through distance learning. Distance Education taken at UO may apply to regular UO degree programs/requirements, and are also eligible for transfer to other schools and colleges. However, the school or college where the courses are being transferred to determines how those courses will be counted toward progress on a degree at that school or college.

A Master's Degree in Applied Information Management (AIM) is available online, through a program of web-based, asynchronous courses. This degree is housed in the UO Graduate School and administered by the UO Division of Continuing Education. AIM is an innovative, part-time program for working adults. This program offers courses in business management, information management, information design and applied research.

Western Baptist College, Salem

<http://www.corban.edu/adultdegree/onlineprogs.html>

Online Courses: Family Studies, Management and Communication.

Appendix 6 – DE and Telecommunications Glossary^{175, 176, 177}

Academic Advisor: An appointed university representative who provides guidance to students in designing an academic program and selecting courses to meet program requirements.

Accredit: to render credible; programs are often accredited by regional and/or general bodies, ensuring that specific curricular standards are met.

Acronyms: Acronyms and abbreviations are frequently used in online communication -- most commonly in chat rooms and while instant messaging -- as a shorthand for commonly used phrases.

Examples:

Lol -- laugh out loud

Rofl -- rolling on floor laughing

Lmao -- laughing my ass off

Rtfm -- read the f***** manual

Stf -- search the forum

NFBSK -- not for British school kids (disturbing material)

NSFW -- not safe for work (usually pornographic material, but also disturbing)

IMHO -- in my humble opinion

Advanced Standing (Advanced Placement, Accelerated Study): direct entry into more advanced levels in the program (bypassing initial components) based on performance on advanced placement tests or academic credit previously earned.

Affidavit: a written statement confirmed by oath.

Associate Degree: degree granted after completion of a two-year post secondary program (sometimes used as a transfer degree).

Asynchronous Communication: two-way, 'non-synchronous' communication that involves a time delay between the transmission and receipt of a message (e.g., e-mail and voice messaging).

Asynchronous learning: Learning in which interaction between instructors and students occurs intermittently with a time delay. Examples are self-paced courses taken via the internet or CD-ROM, online discussion groups, and e-mail.

Audioconferencing: voice communications, either through standard telephone lines or through Internet-based software.

Audiographics: type of audio-based technology that uses hone lines to transmit visual information, such as drawings and charts.

Baccalaureate: a bachelor's degree level of study.

Baud: a unit of digital transmission used to describe the rate at which information flows between two electronic devices such as modems.

Blogs: A blog is an online journal where users post thoughts, comments or news in a chronological format. Updates are often frequent and done on a regular basis.

Bot: Short for robot, bots are applications designed with a limited amount of artificial intelligence and set to do a specific automated task. One example would be to index Web sites for search engines. A more malevolent example would be a bot designed to mine information from sites -- such as e-mail addresses -- which then can be added to mailing lists, contributing to spam.

Broadband: Broadband is the term used for high-speed Internet connections that allow users to connect to Web sites and download content at a faster speed. Broadband has paved the way for high-quality streaming video as well as more interactive content.

Browser: A browser is a software program that allows a user to access, or "surf," the Internet. Browsers read HTML and render it into a Web site. Early browsers like Mosaic (the first Web browser) and Lynx (which was text only) have been replaced with browsers with many advanced features. Internet Explorer, Safari and Firefox are some of the well-known browsers today.

Cable modem: A cable modem is a high-speed Internet connection that uses the same wire as the one that brings cable television into homes. Unlike DSL, cable-based Internet services aren't as restricted by distance and offer similar speeds (currently up to 6 Mbps or about 100 times the speed of dial-up). But a cable connection is shared bandwidth, so if several users in a given area are all using their connection at the same time, speeds will drop.

Case Study: the application of management principles to simulated or real-life situations in order to give students practice in applying their analytical and presentation skills as well as theoretical knowledge.

College: institution offering associate and bachelor's degrees focusing on education rather than research; also refers to divisions within a university system (e.g., College of Business).

Compressed Video: Video images processed to remove extraneous information, facilitating the transmission of information over telephone lines or other narrow bandwidth carriers.

Concentration: a focus undertaken within a major; for example, a student pursuing a degree with a major in business might undertake a concentration in human resources management.

Concurrent: simultaneous; occurring at the same time or together.

Conditional Acceptance (Admission): offer of a place in a university/institution degree program to an academically qualified student subject to meeting a specified condition, often completion of English language studies or achievement of a minimum English proficiency test score.

Consortium: an association of several bodies.

Cookie: Cookies are information stored on a user's computer and on a Web site's server that identifies the user to Web sites the user has previously visited. This information can include preferences set for that site and personal information entered (including address or login information). Cookies allow for a certain amount of personalization for a user when repeatedly visiting a site.

Cooperative or Co-op (Program): education program that combines theoretical learning with practical experience, generally via alternating periods of classroom study and work placements.

Core Course: course addressing the main components of a program, generally as a requisite for graduation.

Courseload: the number of courses taken or credits earned within a period of study (semester, term, quarter, etc.).

Credit: a measure granted for each course completed; most academic programs require students to complete a certain number of credits for graduation.

Credit Hours: a system of measuring credit by the number of hours spent in class a week.

Curriculum: subjects included in a course of study; plural: curricula.

Cyberspace: This is another word for the Internet and the society that revolves around it. The term was originally coined by author William Gibson in the novel "Neuromancer."

DSL: A Digital Subscriber Line is a high-speed Internet connection that uses copper telephone lines available in most home and businesses. DSL requires the end user to be relatively close to the central office, or origin of the DSL signal, which limits the area DSL can cover. DSL speeds can range between 256 Kbps (about five times faster than dial-up) and 6 Mbps (more than 100 times faster than dial-up), depending on what level of service is purchased and available in a particular area.

DNS: The Domain Name system, or server, is the system that allows an Internet user to use a name for a Web site instead of the IP address consisting of a series of numbers, and is thus easier to remember and use. So instead of typing 64.236.24.20, a user types in the name of the site -- www.cnn.com -- and the DNS directs your request seamlessly to the numerical address of the site.

Deferred Admission: postponing enrollment into an academic program after acceptance for a specified period of time (usually one year).

Denial of service: Denial of service is an attack on a site or service that overwhelms a Web site's servers with requests or messages, thus preventing users making legitimate requests.

Dial-up: A dial-up Internet connection is one in which a modem is used to dial into the ISP via a telephone line. Connection speeds are limited to 56 Kbps, making download speeds very slow. While the telephone line is in use to connect to the Internet, standard voice calls cannot be made.

Digital music: Music formatted in such a way to listen to it on a computer or a portable device. The most common format is MP3 (short for MPEG layer three), which became popular due to its small size and availability for download in the Internet. Other formats such as Windows Media and AAC contain digital right management (DRM) encoding to prevent unlawful distribution and are used as legal methods for downloading music.

Digital Technology: allows compression of communication signals for faster, easier transmission of information.

Distance Education (Learning): Educational situation in which the instructor and students are separated by time, location, or both. Education program whereby students may complete all or part of an educational program in a geographical location apart from the institution hosting the program; the final award given is equivalent in standard and content to an award program completed on campus. Education or training courses are delivered to remote locations via synchronous or asynchronous means of instruction. USDLA defines Distance Learning as "The acquisition of Knowledge and skills through mediated information and instruction, encompassing all technologies and other forms of learning at a distance."

Double Major: the pursuit of two majors during the course of one degree program.

Domain name: This is the name that constitutes an address of a Web site (i.e. CNN.com). The last part of the domain name is called a Top Level Domain. This part of the name indicates a particular kind of site. For example, .com designates commerce, .org designates an organization and .gov designates a government Web site.

Download: Download means to copy a file from a server on the Internet -- or another network -- to a local computer.

E-mail: Probably the No. 1 application of the Internet, electronic mail, or e-mail, is a way of transmitting messages via computer or similar device. E-mail is mainly text based, but as e-mail systems have advanced, attaching images and even using HTML formatting has become popular. Ray Tomlinson invented e-mail in 1971. Tomlinson developed the program based on the popularity of another program that only allowed you to leave messages on a local computer. He devised the username@computer designation so that the sending computer would know what user to send the message to "at" what computer. The widespread use of e-mail, also generated the term snail mail -- referring to letters sent through the postal service and their relatively slow arrival time.

Early Admission: acceptance into a post secondary institution before completion of secondary school; admission standards are usually higher than for regular admission.

Early Decision: a system in which applicants apply earlier than the posted deadline, and, if accepted, withdraw all other applications and agree to enroll at the university.

Elective Courses: optional courses that complement the core components of a degree program; credit earned is applied to the final degree.

Entrepreneurship: the undertaking of a business or enterprise with chance of Profit or loss; a common specialization in business programs; program participants study the traits of successful entrepreneurs as well as what is needed to establish a new business.

Emoticons: Emoticon symbols are used to indicate mood. Since most online communication is text based, they are a way to show humor or other emotions to other users. Initially emoticons consisted of typed characters (also known as ASCII-grams) that implied a facial expression. For example, using a colon, dash and close parentheses mark like this -- :-) -- represents a smiling face. Later programs such as AOL's Instant Messenger and Yahoo! Messenger started including graphical representations. Emoticons got their start in 1982 when Scott E. Falhman, a computer scientist at Carnegie Mellon University, suggested using :-) as an indicator for humorous posts on the university's bulletin board system.

Exchange (Program): agreement between institutions that permit students to move from one institution to another for short – or long-term periods of study or employment; may offer credit towards a degree earned at the original institution.

FTP: File Transfer Protocol is the standard for uploading and downloading files on the Internet. This is the main method to upload files on a server when building a Web site. Some sites allow users to connect to an FTP site to download public files (like support files or documentation) through anonymous FTP, which uses "anonymous" as the user name and an e-mail address as the password.

Faculty: the professors and researchers employed by a university; also refers to divisions within a university system (e.g., Faculty of Engineering).

Firewall: A firewall is a hardware or software security system that acts as a barrier between a computer or network and the Internet. The firewall blocks all traffic between the computer or network and the Internet that hasn't been specifically allowed. The intention is to keep out malevolent requests. How secure a firewall is depends on how it is set. If the settings are too stringent, some activities (like instant messaging) can be blocked. If set too loosely, the firewalls protective nature is circumvented, allowing others to potentially connect to the computer or network and perform unauthorized functions.

Flame: A flame is an e-mail message or a message posted on a forum, bulletin board or newsgroup intended to make fun of humiliate another user. Flame messages are usually in response to something (a silly or misinformed post, for example), and often spawn "flame-wars" where users go back and forth, posting messages and egging each other on.

Foundation (Studies/Year): preliminary, general or specific course of study that forms the basis of subsequent education; frequently offered as a qualifying year for candidates who require skills/knowledge upgrading for entry into a desired degree program.

GPA: grade point average; the average grade achieved by a student during the course of an educational program, calculated on various scales determined by individual institutions.

Graduate Study: post baccalaureate program, usually leading to masters or doctoral degrees.

Honors Program: programs of particularly challenging course work (and often including a major project or thesis) offered to high-achieving students; achievement is recognized on the degree.

HTML: Hypertext Markup Language, or HTML, is the language or code used to construct Web pages. HTML uses tags (a command or instruction) to tell the browser how to display information. HTML instructs browsers how to display graphics or images, text and other features that make up a site. This includes hyperlinks or links that send the browser to another page.

Hacker/cracker/script kiddie: A hacker is a skilled computer programmer who enjoys pushing the limits of computer systems. The term hacker has come to have a negative connotation, implying that all those who "hack" mean to do harm. Cracker is the term created by the hacker community to describe those who break the security of a computer system -- usually with malevolent intent. A script kiddie (also script kitty or script bunny) is someone with little experience who slightly alters code written by others.

Hybridized course: A version of an on-line course, similar to a web-enhanced course.

IP (Internet Protocol): Using the Internet Protocol, delivery of a learning event over a network from a single source to multiple participants.

ISDN (Integrated Services Digital Network): A telecommunications standard enabling communications channels to carry voice, video, and data simultaneously.

ISP: An Internet service provider is a company that provides an end user with a connection to the Internet and other similar services, such as e-mail. Examples include EarthLink and AOL. Like CNN.com, AOL is a unit of Time Warner.

ITFS (Instructional Television Fixed Service): Microwave-based, high frequency television used in educational program delivery.

Instant messaging/chat room: Instant message is a program that allows users to send messages back and forth in real time or close to real time, thus allowing a spontaneous conversation to take place. Chat rooms are similar, in that conversations take place and messages appear quickly, but more users are involved and they are normally centered on discussing a particular topic (an ongoing sporting event for example).

Interdisciplinary (Curriculum): study of all aspects of a particular field (e.g., business, engineering) rather than complete specialization in a single area (e.g., marketing, electrical engineering); gives students a broad, well-rounded education.

Internet: electronic communications network that connects computer networks and organizational computer facilities around the world.

Internship: concentrated period of degree-related, industrial or business placement, for which participant may or may not be remunerated.

Joint Degree: pursuit of two degrees (e.g., business and law) at the same time; students achieving joint degrees frequently benefit from special programs enabling a shorten period of study.

Leet/L33t /1337 among others: These refer to "elite" -- a subculture form of English where nonalphabet characters are substituted for letters. Here are some examples:

K3wl -- cool

p@wn3d/pwn/pwnd -- owned -- to beat or dominate an opponent.

teh suck -- the suck -- as in it's not good

r0x0r -- rock -- something was good or cool

w00t! -- An interjections showing joy or excitement

squee -- a sound of excitement

Liberal Arts: non-technical work conducted in the humanities and social and natural sciences.

Major: the primary academic focus pursued within a degree program; often combined with general education requirements.

Matriculation: qualifying by examination or otherwise for admission to a university.

Mechatronic: the use of computer hardware and software to control mechanical systems.

Minor: a secondary academic focus pursued as a supplement or accent to a major program.

Modem: a device used to convert digital information for transmission over a telecommunications channel.

Netizen: A Netizen is a citizen of the Internet -- someone who spends a great deal of time online and is an experienced user of the Internet.

On-line course: The state in which a computer is connected to another computer or server via a network to deliver course content. Replaces the traditional face-to-face course.

Open Admissions: admissions policy under which there are no academic prerequisites with the exception of secondary school completion.

Orientation: an organized introduction for new students to the Campus, resources and surrounding area; usually occurs just prior to the onset of classes.

P2P: Short for peer to peer, P2P is a form of file sharing where users trade files with each other, versus downloading them from a centralized server. Peer-to-peer networking employs a system in which each user can see the files that every other connected user has to share.

Packet: The basic unit of data sent across the Internet. As data -- such as an e-mail -- is sent, it is broken into packets and each packet is individually numbered (so it can be reassembled once all packets arrive at the destination). It includes information such as origin, destination and length.

Parallel-time Co-op: cooperative education system in which students complete classroom instruction and acquire degree-related work experience during the same time period.

Placement Test: a test used to determine a student's level in a particular skill area; commonly used for placement in English language programs for nonnative speakers; conducted after a student's arrival on campus.

Plug-in: A plug-in is an additional piece of software that increases functionality of by allowing it to read a format that wasn't supported in its base form. A common example would be the Flash plug-in, which when added to a particular browser, would allow that browser to correctly read and display Flash content. This modular approach allows for the easy support of quickly developing technology.

Podcasting: Podcasting involves making an audio file (usually in MP3 format) of content that is updated frequently (i.e. a weekly radio program) available for automatic download so users can listen to the file at their convenience. The term Podcasting comes from the popular iPod music player from Apple Computer, however the technology is not limited to using an iPod.

Pop-up: A browser window -- usually smaller -- that "pops up" separate from the main window. Most often this term refers to advertising that appears with no interaction from the user. Another variation of this is the "pop-under" where the window appears under the main browser and becomes visible only when that window is closed.

Pool (Selection): determination, with academic advisory assistance, of a schedule of requires and elective courses and the appropriate order of completion to fulfill degree requirements.

Port: This is a specific address defined for different purposes. Different services on the Internet "listen" at different predefined ports. For example, port 80 is defined for HTTP (or Web) services. Other ports can be identified for other purposes or specific applications. When a nonstandard port is used, it is included in the URL or address.

Postgraduate Studies: see graduate study.

Practicum: concentrated period of degree-related, practical work experience; plural: practica.

Prerequisite: course required as preparation for entry into a more advanced academic course or program.

Private Institution: an institution that relies primarily on non-governmental sources of financial support.

Prorated: proportionally; for prorated refunds, the amount of money refunded is proportional to the amount of time that passed from a specified date.

Public Institution: an institution that receives the majority of funding through the government.

RSS: Short for Really Simple Syndication (or Rich Site Summary), RSS is a method of publishing content on frequently updated Web sites. A user will access headlines and see Web site updates via an RSS reader, an application that displays a short summary and provides links to the full article or update on the Web site. This allows a user to "subscribe" to a site or a group of sites so that they can quickly scan the updated headlines or material and then go to the specific articles that interest them. Some browsers also include the RSS reading functions.

Reference (Recommendation): a commendation from a former teacher or counselor in the form of a letter attesting to the student's academic and/or personal merits.

Registrar: the person responsible for records of enrollment and academic achievement at the institution.

Residence Hall (Dormitory): accommodation located on campus; students usually live in shared or private rooms; cooking facilities are not generally supplied, though many institutions offer cafeteria meal plans.

Rolling Admissions: a policy with no set deadline for application submission.

Router: A router is a hardware device that connects one network to another and directs traffic on the Internet by filtering packets of data and sending them to their correct destination. Packets of information usually move from one router to the next until they reach their destination.

Search engine: A search engine is a specially designed site to help users find other Web sites. Some popular ones include Google and Yahoo!. Some search engines have evolved into portals, or sites designed to aggregate information, and are used as a starting point or home base on the web. GOPHER is an early form of a text-based searching tool on the Internet that allowed users to find information from a variety of sources without knowing the actual location of those sources.

Server/host: A host is the starting point of information downloaded from the Internet, and where information is sent if you are uploading data. It is the place where the data that makes up a Web site resides. Host/hosting can also refer to the company that provides the server for a Web site to reside on.

Shareware, careware, freeware, wareZ: Shareware is software designed to be shared or passed on by users. The programs are often distributed online for free or a small fee for those who find the program useful under a "try then buy" philosophy. Some variations include freeware (completely free), and careware or donation-ware (where the publisher asks that you donate to a group or charity). WareZ is a term that is used to describe commercial software that has been altered to remove the need to register the product or includes registration information to avoid paying for the software

Spam/phish/phishing: This is unsolicited e-mail, usually sent out in mass or bulk to several recipients. Spam is largely made up of advertising for various sites and products, including pornography, and other methods to separate

unsuspecting users from their money. The term originated from a Monty Python skit referring to the canned meat product of the same name. Phishing is a method where spammers use legitimate looking e-mails (appearing to come from a credit card company, for example) in attempt to get personal information that can be used to steal a user's identity.

Specialization: a focus undertaken within a major; for example, a student pursuing a degree with a major in engineering might specialize in computer science.

Spyware/adware: These are applications that are usually downloaded unknowingly, often included in a "free download" of some kind. These programs can overtake a computer's available resources (memory, hard drive space and Internet bandwidth), adversely affecting its performance. Spyware is an application designed to collect information on a user, usually to build a marketing profile. Adware refers to a program that will "pop up" advertising on a users computer. A user's surfing habits can trigger this advertising, so that the ad better targets the user.

Standardized Tests: tests administered by an outside body that are used in the admissions process in conjunction with academic transcripts; these include the SAT and ACT.

Streaming: This is a process, used with audio and video, where a file is played as it is being downloaded, minimizing the amount of time a user must wait to experience the clip. The entire length of the clip doesn't need to be downloaded for the user to begin watching or listening to the file.

Study Abroad (Program): agreement between institutions in different geographical locations enabling students to move from one to the other for short or long-term study periods within a single degree program.

Syllabus: programs or outline of a course of study.

Synchronous learning: A real-time, instructor-led online learning event in which all participants are logged on at the same time and communicate directly with each other. In this virtual classroom setting, the instructor maintains control of the class, with the ability to "call on" participants. Interaction may occur via audio or videoconferencing.

T1 (DS-1): High speed digital data channel that is a high-volume carrier of voice And/or data. Often used for compressed video teleconferencing. T-1 has 24 voice channels.

Teleconferencing: the use of sophisticated telecommunications to link remote sites; examples are audioconferencing and videoconferencing.

Telnet: Telnet is a utility program that allows a user to connect to a remote (via the Internet or another network) computer and enter commands that will be executed as if the user were logged into that computer directly. While telnet is insecure, a similar technology is SSH or secure shell, which provides a secure method for logging in to a remote computer and issuing commands.

Terminal Degree: the highest degree that may be obtained in a field (usually, but not always, a doctoral degree).

Tertiary: post secondary education; education pursued after secondary school (usually in reference to college or university education).

Transcript: official academic records detailing place and time of study, courses completed and grades achieved.

Troll: A troll is a user of a newsgroup, forum or message board that posts messages with the intent of inciting an argument or flame-war.

Tutor: a qualified person who provides academic assistance to students, and may also grade assignments; a tutor generally provides one to one assistance to individual students, or less often, teaches in a more formal classroom setting.

Twinning (Program): arrangement between institutions in different geographical locations in which students complete up to two years of study in a college in their home countries, followed by guaranteed admission to the partner university for completion of a degree program; the degree is granted by the latter institution.

URL: Short for Uniform Resource Locator, the URL is the actual address of a Web site. (i.e. <http://www.cnn.com>) The first part of the address is HTTP, which stands for Hypertext Transport Protocol, which is the protocol for transferring files over the World Wide Web. In other words, it is the established manner for a Web browser to connect to a server and receive HTML pages.

USENET/Newsgroups: USENET is a collection of online message boards that are sorted by topic, where people post messages. They cover a variety of topics (ranging from casual to serious), and are read and posted to by people all over the world.

VoIP: VoIP, short for Voice over Internet Protocol, is a technology that allows the use of a broadband Internet connection to make voice telephone calls. A special adapter is used to send a voice call in a digital form using the Internet rather than the traditional voice system.

Videocassette: cartridge containing taped video and audio information often used as a distance learning delivery mode owing to its adaptability to the distance learner's study methods.

Videoconference: a conference conducted in 'real time' through the use of video technology, allowing individuals to participate from separate locations; frequently used by distance education programs.

Video-streaming: Audio or video files played as they are being downloaded over the internet instead of users having to wait for the entire file to download first. Requires a media player program.

Virus/worm/Trojan horse: These programs are designed to disrupt the use of a users machine. They are often downloaded unknowingly from Web sites or as attachments in e-mail. A Trojan horse is a program that is not what it appears to be. For example it may purport to be a program to play a certain kind of video, and then will do some harmful action instead. A worm is a program designed to replicate itself and infect as many systems as possible.

Web-enhanced course: Enhancement of a traditional face-to-face course by placing some component of the course in an internet accessible location, such as a web-course product, campus intranet location, or group posting location.

Wi-Fi: Wi-Fi is short for "Wireless Fidelity" and is a set of standards for wireless local area networks based on the specifications known as IEEE 802.11. It was originally developed for use by wireless devices and local networks, but it is now used for Internet access as well. If you access the Internet wirelessly from your computer or personal digital assistant, chances are you are using a flavor of Wi-Fi.

Wiki: Wiki is a piece of server software that allows users to freely create and edit Web page content using any Web browser. Wiki supports hyperlinks and has a simple text syntax for creating new pages and cross links between internal pages on the fly. Wiki is unusual among group communication mechanisms in that it allows the organization of contributions to be edited in addition to the content itself. Like many simple concepts, "open editing" has some profound and subtle effects on Wiki usage. Allowing everyday users to create and edit any page in a Web site is exciting in that it encourages democratic use of the Web and promotes content composition by non-technical users.

Wi-MAX: An acronym that stands for Worldwide Interoperability for Microwave Access. An IEEE 802.16 standard for point-to-multipoint broadband wireless access.

Wireless Broadband: Transmission facilities that have bandwidth or capacity greater than that of a voice line. Capable of carrying numerous voice, video and data channels simultaneously. Two examples are Wi-Fi and Wi-MAX

World Wide Web: The World Wide Web is the vast collection of graphical pages on the Internet and is what most people think of when they think of being online. The Web is made up of Web sites, which are a collection of Web pages that include text, images and other components formatted in HTML.

Appendix 7 – South Coast K-12 Connectivity

In this appendix find the inventory of telecommunications connectivity for schools in Coos, Curry and Western Douglas counties.¹⁷⁸

Sites

Site Name	District	Tech Center	City	County	Site Function	Primary Upstream Media Type	Circuit Type	Max. Bandwidth (Mb/sec)	Upstream (Mb/sec)	Downstream (Mb/sec)
BANDON DISTRICT OFFICE	Bandon	South Coast ESD	BANDON	COOS	Admin Office	Dark Fiber	Ethernet	1000	1000	1000
BANDON OPPORTUNITY CHARTER SCHOOL	Bandon	South Coast ESD	BANDON	COOS	Charter School	Copper	DSL		0.13	0.77
HARBOR LIGHTS MIDDLE SCHOOL	Bandon	South Coast ESD	BANDON	COOS	Middle School	Dark Fiber	Ethernet	1000	1000	1000
OCEAN CREST ELEMENTARY SCHOOL	Bandon	South Coast ESD	BANDON	COOS	Elementary School	Dark Fiber	Ethernet	1000	1000	1000
Alternative Youth Activities Inc	Brookings-Harbor	South Coast ESD		CURRY	Other					
AZALEA MIDDLE SCHOOL	Brookings-Harbor	South Coast ESD	BROOKINGS	CURRY	Middle School	Dark Fiber	Ethernet	1000	1000	1000
BROOKINGS-HARBOR DISTRICT OFFICE	Brookings-Harbor	South Coast ESD	BROOKINGS	CURRY	Admin Office	Dark Fiber	Ethernet	1000	1000	1000
KALMIOPSIS ELEMENTARY SCHOOL	Brookings-Harbor	South Coast ESD	BROOKINGS	CURRY	Elementary School	Dark Fiber	Ethernet	1000	1000	1000
AGNESS ELEMENTARY SCHOOL	Central Curry	South Coast ESD	AGNESS	CURRY	Elementary School					
CENTRAL CURRY DISTRICT OFFICE	Central Curry	South Coast ESD	GOLD BEACH	CURRY	Admin Office	None	None			
GOLD BEACH TECHNOLOGY CHARTER SCHOOL	Central Curry	South Coast ESD	GOLD BEACH	CURRY	Charter School	None	None			
RILEY CREEK ELEMENTARY SCHOOL	Central Curry	South Coast ESD	GOLD BEACH	CURRY	Elementary School	Wireless	802.11b	10	10	10
BLOSSOM GULCH ELEMENTARY SCHOOL	Coos Bay	Coos Bay	COOS BAY	COOS	Elementary School	Fiber	Ethernet	1000	1000	1000
BUNKER HILL ELEMENTARY SCHOOL	Coos Bay	Coos Bay	COOS BAY	COOS	Elementary School	Fiber	Ethernet	1000	1000	1000
DESTINATIONS PUBLIC CHARTER SCHOOL	Coos Bay	Coos Bay	COOS BAY	COOS	Charter School	Fiber	Ethernet	1000	1000	1000
MADISON ELEMENTARY SCHOOL	Coos Bay	Coos Bay	COOS BAY	COOS	Elementary School	Fiber	Ethernet	1000	1000	1000
MARSHFIELD SENIOR HIGH SCHOOL	Coos Bay	Coos Bay	COOS BAY	COOS	High School	Fiber	Ethernet	1000	1000	1000
MILICOMA INTERMEDIATE SCHOOL	Coos Bay	Coos Bay	COOS BAY	COOS	Middle School	Fiber	Ethernet	1000	1000	1000

Site Name	District	Tech Center	City	County	Site Function	Primary Upstream Media Type	Circuit Type	Max. Bandwidth (Mb/sec)	Upstream (Mb/sec)	Downstream (Mb/sec)
Milner Crest Education Center	Coos Bay	Coos Bay	COOS BAY	COOS	Admin Office	Fiber	Ethernet	1000	3	1000
RESOURCE LINK CHARTER SCHOOL	Coos Bay	Coos Bay	COOS BAY	COOS	Charter School	Fiber	Ethernet	1000	1000	1000
SUNSET MIDDLE SCHOOL	Coos Bay	Coos Bay	COOS BAY	COOS	Middle School	Fiber	Ethernet	1000	1000	1000
COQUILLE HIGH SCHOOL	Coquille	South Coast ESD	COQUILLE	COOS	High School	Wireless	802.11b	11	11	11
COQUILLE VALLEY INTERMEDIATE SCHOOL	Coquille	South Coast ESD	COQUILLE	COOS	Middle School					
COQUILLE VALLEY MIDDLE SCHOOL	Coquille	South Coast ESD	COQUILLE	COOS	Middle School	Wireless	802.11b	11	11	11
LINCOLN ELEMENTARY SCHOOL	Coquille	South Coast ESD	COQUILLE	COOS	Elementary School	Wireless	802.11b	11	11	11
MYRTLE CREST SCHOOL	Myrtle Point	South Coast ESD	MYRTLE POINT	COOS	Elementary School	Wireless	802.11b	10	10	10
MYRTLE POINT DISTRICT OFFICE	Myrtle Point	South Coast ESD	MYRTLE POINT	COOS	Admin Office	Wireless	802.11b	10	10	10
HILLCREST ELEMENTARY SCHOOL	North Bend	South Coast ESD	NORTH BEND	COOS	Elementary School	Fiber	Ethernet	100	2	2
LIGHTHOUSE SCHOOL	North Bend	South Coast ESD	NORTH BEND	COOS	Charter School	None	None			
NORTH BAY ELEMENTARY SCHOOL	North Bend	South Coast ESD	NORTH BEND	COOS	Elementary School	Copper	Frame	1.5	0.77	0.77
NORTH BEND DISTRICT OFFICE	North Bend	South Coast ESD	NORTH BEND	COOS	Admin Office	Fiber	Ethernet	100	1	1
NORTH BEND MIDDLE SCHOOL	North Bend	South Coast ESD	NORTH BEND	COOS	Middle School	Dark Fiber	Ethernet	1000	1000	1000
Off Campus School	North Bend	South Coast ESD		COOS	Alternative School					
OREGON COAST TECHNOLOGY SCHOOL	North Bend	South Coast ESD	NORTH BEND	COOS	Charter School	None	None			
PACIFIC CHILD CARE CENTER	North Bend	South Coast ESD		COOS	Other					
BLANCO SCHOOL	Port Orford-Langlois	South Coast ESD	PORT ORFORD	CURRY	Middle School	Copper	T1	1.5	1.5	1.5
DRIFTWOOD ELEMENTARY SCHOOL	Port Orford-Langlois	South Coast ESD	PORT ORFORD	CURRY	Elementary School	Copper	Frame	1.5	0.77	0.77
POWERS ELEMENTARY SCHOOL	Powers	South Coast ESD	POWERS	COOS	Elementary School	Fiber	Ethernet	1000	1000	1000
HIGHLAND ELEMENTARY SCHOOL	Reedsport	South Coast ESD	REEDSPORT	DOUG	Elementary School	Wireless	802.11b	1000	11	11
REEDSPORT DISTRICT OFFICE	Reedsport	South Coast ESD	REEDSPORT	DOUG	Admin Office	Wireless	802.11b	11	11	11
Adult Transition	South Coast ESD	South Coast ESD		COOS	Special Ed Facility	Copper	Dialup	0.03	0.03	0.03
ESD Program at Coquille Valley Middle School	South Coast ESD	South Coast ESD		COOS	Middle School	None	None			
ESD Program at Marshfield High School	South Coast ESD	South Coast ESD		COOS	High School	None	None			
ESD Program at Milner Crest	South Coast ESD	South Coast ESD			Special Ed Facility	Fiber	Ethernet	100	1	1

Site Name	District	Tech Center	City	County	Site Function	Primary Upstream Media Type	Circuit Type	Max. Bandwidth (Mb/sec)	Upstream (Mb/sec)	Downstream (Mb/sec)
ESD Program at North Bend High	South Coast ESD	South Coast ESD		COOS	High School	None	None			
ESD Program at North Bend MS	South Coast ESD	South Coast ESD		COOS	Middle School	None	None			
ESD Program at Riley Creek Elementary School	South Coast ESD	South Coast ESD		COOS	Elementary School	None	None			
South Coast ESD Gold Beach Campus	South Coast ESD	South Coast ESD			Special Ed Facility	Copper	Frame	1.5	0.77	0.77

Site Name	Circuit Configuration	Circuit Provided By	Monthly Circuit Cost	Upstream Site Name or ISP	Internet Access	District Applications	Voice Over IP	Video	Average Circuit Utilization	Measure bandwidth utilization?	CIPA Filtering	Caching	Anti-Virus Filtering	Anti-Spam Filtering	Intrusion Detection	Is an SLA in place for this circuit?
BANDON DISTRICT OFFICE	Ethernet	Dist. Owned	none	Bandon HS	Y	Y				No	Y	No	Y	Y	No	No
BANDON OPPORTUNITY CHARTER SCHOOL	DSL	Verizon		verizon	Y					No	Y	No	No	No	No	No
HARBOR LIGHTS MIDDLE SCHOOL	Ethernet	Dist. Owned	none	Bandon HS	Y	Y				No	Y	No	Y	Y	No	No
OCEAN CREST ELEMENTARY SCHOOL	Ethernet	Dist. Owned	none	Bandon HS	Y	Y				No	Y	No	Y	Y	No	No
Alternative Youth Activities Inc																
AZALEA MIDDLE SCHOOL	Ethernet	Dist. Owned	none	Brookings HS	Y	Y				No	Y	No	Y	Y	No	No
BROOKINGS-HARBOR DISTRICT OFFICE	Ethernet	Dist. Owned	none	Brookings HS	Y	Y				No	Y	No	Y	Y	No	No
KALMIOPSIS ELEMENTARY SCHOOL	Ethernet	Dist. Owned	none	Brookings HS	Y	Y				No	Y	No	Y	Y	No	No
AGNESS ELEMENTARY SCHOOL																
CENTRAL CURRY DISTRICT OFFICE																
GOLD BEACH TECHNOLOGY CHARTER SCHOOL																
RILEY CREEK ELEMENTARY SCHOOL	Wireless P2P	Dist. Owned	none	Gold Beach HS	Y	Y				N	Y	N	Y	Y	N	N
BLOSSOM GULCH ELEMENTARY SCHOOL	Ethernet	Charter	\$200	Milner Crest Ed Cntr	Y	Y				N	N	N	N	N	N	N
BUNKER HILL ELEMENTARY SCHOOL	Ethernet	Charter	\$200	Milner Crest Ed Cntr	Y	Y				N	N	N	N	N	N	N
DESTINATIONS PUBLIC CHARTER SCHOOL	Ethernet	Charter	\$200	Milner Crest Ed Cntr	Y	Y				N	N	N	N	N	N	N
MADISON ELEMENTARY SCHOOL	Ethernet	Charter	\$200	Milner Crest Ed Cntr	Y	Y				N	N	N	N	N	N	N
MARSHFIELD SENIOR HIGH SCHOOL	Ethernet	Charter	\$200	Milner Crest Ed Cntr	Y	Y				N	N	N	N	N	N	N
MILICOMA INTERMEDIATE SCHOOL	Ethernet	Charter	\$200	Milner Crest Ed Cntr	Y	Y				N	N	N	N	N	N	N
Milner Crest Education Center	Ethernet	ORCA/NoaNet	####	Eugene School Dist	Y	Y		8		Y	Y	Y	Y	Y	N	N
RESOURCE LINK CHARTER SCHOOL	Ethernet	Charter	\$0	Milner Crest Ed Cntr	Y	Y				N	N	N	N	N	N	N
SUNSET MIDDLE SCHOOL	Ethernet	Charter	\$200	Milner Crest Ed Cntr	Y	Y				N	N	N	N	N	N	N
COQUILLE HIGH SCHOOL	Wireless P2P	Dist. Owned	none	Coquille DO	Y	Y	Y			N	Y	N	Y	Y	N	N
COQUILLE VALLEY INTERMEDIATE SCHOOL																
COQUILLE VALLEY MIDDLE SCHOOL	Wireless Multi-p	Dist. Owned	none	Coquille DO	Y	Y				N	Y	N	Y	Y	N	N
LINCOLN ELEMENTARY SCHOOL	Wireless Multi-p	Dist. Owned	none	Coquille DO	Y	Y				N	Y	N	Y	Y	N	N

Site Name	Circuit Configuration	Circuit Provided By	Monthly Circuit Cost	Upstream Site Name or ISP	Internet Access	District Applications	Voice Over IP	Video	Average Circuit Utilization	Measure bandwidth utilization?	CIPA Filtering	Caching	Anti-Virus Filtering	Anti-Spam Filtering	Intrusion Detection	Is an SLA in place for this circuit?
MYRTLE CREST SCHOOL	Wireless P2P	Dist. Owned	none	Myrtle Point HS	Y	Y				N	Y	N	Y	Y	N	N
MYRTLE POINT DISTRICT OFFICE	Wireless P2P	Dist. Owned	none	Myrtle Point HS	Y	Y				N	Y	N	Y	Y	N	N
HILLCREST ELEMENTARY SCHOOL	Ethernet	ORCA		SCESD	Y	Y			2	Y	Y	N	Y	Y	N	Y
LIGHTHOUSE SCHOOL																
NORTH BAY ELEMENTARY SCHOOL	Frame Relay	Verizon		SCESD	Y	Y			3	Y	Y	N	Y	Y	N	Y
NORTH BEND DISTRICT OFFICE	Ethernet	ORCA		SCESD	Y	Y			2	Y	Y	N	Y	Y	N	Y
NORTH BEND MIDDLE SCHOOL	Ethernet	Dist. Owned	none	North Bend HS	Y	Y			1	Y	Y	N	Y	Y	N	Y
Off Campus School																
OREGON COAST TECHNOLOGY SCHOOL																
PACIFIC CHILD CARE CENTER																
BLANCO SCHOOL	Point to Point	Verizon		Pacific HS	Y	Y			2	Y	Y	N	Y	Y	N	Y
DRIFTWOOD ELEMENTARY SCHOOL	Frame Relay	Verizon		SCESD	Y	Y			2	Y	Y	N	Y	Y	N	Y
POWERS ELEMENTARY SCHOOL	Ethernet	Dist. Owned	none	Powers HS	Y	Y				N	Y	N	Y	Y	N	Y
HIGHLAND ELEMENTARY SCHOOL	Wireless Multi-p	Dist. Owned	none	Reedsport HS	Y	Y			1	Y	Y	N	Y	Y	N	Y
REEDSPORT DISTRICT OFFICE	Wireless Multi-p	Dist. Owned	none	Reedsport HS	Y	Y			1	Y	Y	N	Y	Y	N	Y
Adult Transition	Dialup	Verizon		SCESD	Y					N	Y	N	Y	Y	N	Y
ESD Program at Coquille Valley Middle School																
ESD Program at Marshfield High School																
ESD Program at Milner Crest	Ethernet	ORCA		SCESD	Y				1	Y	Y	N	Y	Y	N	Y
ESD Program at North Bend High																
ESD Program at North Bend MS																
ESD Program at Riley Creek Elementary School																
South Coast ESD Gold Beach Campus	Frame Relay	Verizon		SCESD	Y	Y	Y	Y	2	Y	Y	N	Y	Y	N	Y

Hosts

Site Name	District	City	County	Site Function	Primary Upstream Network Media Type	Circuit Type	Maximum Bandwidth Capacity of Circuit (Mb/sec)	Upstream Allocated Bandwidth (Mb/sec)	Downstream Allocated Bandwidth (Mb/sec)	Circuit Configuration	Circuit Provided By	Monthly Circuit Cost
COQUILLE DISTRICT OFFICE	Coquille	COQUILLE	COOS	Admin Office	Copper	Frame	1.5	0.77	0.77	Frame	Unicom	\$541
POWERS HIGH SCHOOL	Powers	POWERS	COOS	High School	Copper	Frame	1.5	0.77	0.77	Frame	Verizon	\$541
MYRTLE POINT HIGH SCHOOL	Myrtle Point	MYRTLE POINT	COOS	High School	Copper	Frame	1.5	0.77	0.77	Frame	Verizon	\$541
BANDON SENIOR HIGH SCHOOL	Bandon	BANDON	COOS	High School	Copper	Frame	1.5	0.77	0.77	Frame	Verizon	\$541
Milner Crest Education Center	Coos Bay Public Schools	Coos Bay	COOS	Admin Office	Fiber	Ethernet	1000	3	1000	Ethernet	ORCA/LS	\$1,500
NORTH BEND SENIOR HIGH SCHOOL	North Bend	NORTH BEND	COOS	High School	Fiber	Ethernet	100	2	2	Ethernet	ORCA	\$940
South Coast ESD Coos Bay Campus	South Coast ESD	COOS BAY	COOS	Special ed facility	Fiber	Ethernet	100	6	6	Ethernet	ORCA	\$5,805
PACIFIC HIGH SCHOOL	Port Orford-Langlois	PORT ORFORD	CURRY	High School	Copper	Frame	1.5	0.77	0.77	Frame	Verizon	\$541
GOLD BEACH HIGH SCHOOL	Central Curry	GOLD BEACH	CURRY	High School	Copper	Frame	1.5	0.77	0.77	Frame	Verizon	\$541
BROOKINGS-HARBOR HIGH SCHOOL	Brookings-Harbor	BROOKINGS	CURRY	High School	Copper	Frame	1.5	0.77	0.77	Frame	Verizon	\$541

Site Name	Upstream Site Name or ISP	Internet Access	District Applications	Video	Average Circuit Utilization	Do Yes or measure bandwidth utilization?	CIPA Filter?	Cachi?	Anti-Virus Filter?	Anti-Spam Filter?	Intrusion Detection?	Is a SLA in place for this circuit?
COQUILLE DISTRICT OFFICE	SCESD	Y	Y	Y	4	Y	Y	N	Y	Y	N	N
POWERS HIGH SCHOOL	SCESD	Y	Y	Y	3	Y	Y	N	Y	Y	N	Y
MYRTLE POINT HIGH SCHOOL	SCESD	Y	Y	Y	8	Y	Y	N	Y	Y	N	N
BANDON SENIOR HIGH SCHOOL	SCESD	Y	Y	Y	7	Y	Y	N	Y	Y	N	N
Milner Crest Education Center	Eugene SD	Y	Y		8	Y	Y	Y	Y	Y	N	N
NORTH BEND SENIOR HIGH SCHOOL	SCESD	Y	Y		7	Y	Y	N	Y	Y	N	Y
South Coast ESD Coos Bay Campus	Port Metro Grp	Y	Y	Y	10	Y	Y	N	Y	Y	N	Y
PACIFIC HIGH SCHOOL	SCESD	Y	Y		5	Y	Y	N	Y	Y	N	Y
GOLD BEACH HIGH SCHOOL	SCESD	Y	Y	Y	7	Y	Y	N	Y	Y	N	N
BROOKINGS-HARBOR HIGH SCHOOL	SCESD	Y	Y	Y	10	Y	Y	N	Y	Y	N	N

Appendix 8 – Interview Participants, Information Sources and Other Groups

Interview Participants

<i>Name</i>	<i>Organization/Telephone/eMail</i>
1. Sandi Arbuckle	SOCC, Systems Administrator 888-7427 sarbuckle@socc.edu
2. Jim Azumano	Rural Policy Advisor Office of the Governor 503-986-6535 Jim.Azumano@state.or.us
3. John Berman	SOCC, TPAD Curriculum Coordinator, high school liaison 888-7271 jberman@socc.edu
4. Joanna Blount	SOCC, Associate Dean Collegiate Education, 888-7240 jblount@socc.edu
5. Agnes Box	OIT, Telecommunications Coordinator 885-1728 boxa@oit.edu
6. Brenda Brecke	SOCC, Associate Dean. Professional Technical Education and Workforce Development 888-7121 bbrecke@socc.edu
7. Cami Bullion	SOCC student bullionc@hotmail.com
8. Camille Cole	ODE, eLearning Distance Education Coordinator (503) 378-3600 x4433 Camille.Cole@state.or.us
9. Earl Desomber	Charter Communications, Crescent City/Brookings manager (707) 465-3357
10. Andrew (Andy) N. Duncan, PhD.	OUS, Director of the Southwestern Oregon University Center Andy_Duncan@ous.edu
11. Tim Enright	eSIS Coordinator, Technical Coordinator 267-1323 time@coos-bay.k12.or.us
12. Shirley Farmer	OUS, Associate Director University Center
13. Kat Flores	SOCC, Director of Information Technology, Research and Planning 888-7293 kflores@socc.edu
14. Joe Frischman	SCESD, Network Administrator 269-4530 joef@scesd.k12.or.us
15. Michael Gaudette,	SOCC, Dean of Marketing/Recruitment/College Advancement 888-7210 mgaudette@socc.edu
16. Peggy Goergen	SOCC Associate Dean, Curry County 469-5017 pgoergen@socc.edu
17. Karen Gray	Coos Bay School District. Superintendent 267-3104 KarenG@coos-bay.k12.or.us
18. Karen Helland	SOCC, Director of Distance and Community Education 888-7212 KHelland@socc.edu
19. Aimee Higgins	Coquille Tribe ahiggins@coquilletribe.org

<i>Name</i>	<i>Organization/Telephone/eMail</i>
20. Rick Howell	SCESD, Superintendent 541 269-4520 rickh@scesd.k12.or.us
21. Onno Husing	Oregon Coastal Zone Management Association, Executive Director 541 265-8918 onno_husing@class.orednet.org
22. Amy Johnson	SOCC student Amanthabrooke05@hotmail.com
23. Chris Johnson	SOCC student cjohnson@socc.edu
24. Jaymalee Johnson	SOCC, Applications Analyst and Training Specialist 888-7631 jayjohnson@socc.edu
25. Karl Kennedy	ORCA, Chief Technical Officer 756-3899 kkennedy@orcacomm.com
26. Kenny Kent	Bandon School District, Superintendent 347-4411 kennyk@bandon.k12.or.us
27. Julie Kremers	SOCC student jkremers@socc.edu
28. Linda Kridelbaugh	SOCC, Professor, Computer Information Systems 888-7233 lkridelbaugh@socc.edu
29. Rich Kirk	RCC Director, Distributed Learning and Media 956-7330 RKirk@roguecc.edu
30. Stephen Kridelbaugh, Ph.D	SOCC, President (retired) skridelbaugh@socc.edu
31. Greg Lund-Chaix	OR Department of Administrative Services, Systems Administrator 503-731-3126 x224 Gregory.a.chaix@state.or.us
32. Rocky Lavoie,	SOCC, Systems and Security Specialist 888-7425 rlavoie@socc.edu
33. Shawn Liggett	SOCC, Student First Stop Coordinator/Supervisor 888-7221 sliggett@socc.edu
34. Brian Lindholme	Charter Communications, Coos Bay manager 888-1996
35. Sonia Martin	WebCT, Inc, Account Manager 781.309.1152 Sonia.Martin@webct.comct.com
36. Dan Morin	Port Orford-Langlois School District, Superintendent 348-2337 dmorin@2cj.com
37. Jay Matheson	SOESD, Supervisor, Technology / Media Services (541) 776-8565 Alexander_Matheson@soesd.k12.or.us
38. Suzie McDaniel	Bay Area Hospital smcdan@bayareahospital.org
39. JJ McLeod	South Coast Business Development Corporation, Executive Director 269-2013 jjmcleod@scbec.org

<i>Name</i>	<i>Organization/Telephone/eMail</i>
40. Jim Moyer	North Bend School district, Director of Curriculum and Instruction 756-8307 jimm@nbend.k12.or.us
41. Steve Nelson	OR Department of Administrative Services, Manager of State Networks 503-378-455 Steve.nelson@state.or.us
42. Ron Opitz	South Coast Development Council, Executive Director 266-9753 ron@scdcinc.org
43. Beth Palmer	South Coast Business Employment Corp. 269-2013 bpalmer@scbec.org
44. Dani Pedrotti	WebCT, Inc., Account Executive Office: 253-858-0889 Mobile: 253-732-4788 danilyn.pedrotti@webct.com
45. Teri Pointer	SCESD, Fiscal/Technology Services Director 541 269-4545 TeriP@scesd.k12.or.us
46. Chris Potthast	SOCC student
47. Tobe Porter	Port Orford Library, Director 332-5622 pol@harborside.com
48. Janet Pretti	SOCC, Curry County Program Coordinator 247-2741 jpretti@socc.edu
49. Sarah Recken	SOCC, Division Director of Collegiate Education 888-7297 srecken@socc.edu
50. Jon Richards	SOCC, Director Business Development Center 756-6645 jrichards@socc.edu
51. Jim Rose	Director, Oregon Public Education Network (OPEN) (503) 675-4065 jimrose@open.k12.or.us
52. Tiffany Rush	South Coast ESD, School Improvement Specialist, PTE/Grant Services Tech 269-4523 tiffanyr@scesd.k12.or.us
53. Karen Sadler	SOCC, Instructional Designer and Support Specialist for WebCT 888-7345 ksadler@socc.edu
54. Patty Scott	SOCC, Director Educational Support, faculty senate 888-7366 pscot@socc.edu
55. Link Shadley	OUS, Virtual Tribal University Coordinator 541.340.9545 cell link@shadley.info
56. John Sneed	PCC, DE Director 503-977-4398 jsneed@pcc.edu
57. Gary Short	Curry General, CFO 247-6621 chdgary@gb.wave.net
58. Avena Singh	SOCC, Web Systems Administrator 888-1583 asingh@socc.edu

<i>Name</i>	<i>Organization/Telephone/eMail</i>
59. Dan Smith	BAH, CEO, SOCC - Board Member dans@bayareahospital.org
60. Tere Tronson	North curry Family and Children's Center, OneStop, Director 332-9191 TronsonT@co.curry.or.us
61. Michael Wilson	OR EDD, Workforce Analyst 751-8528 Michael.K.Wilson@state.or.us
62. Kirstin Wolfe	Coquille Tribe, Education Coordinator 756-0904, ext. 225 kwolfe@coquilletribe.org

South Coast Rural Distance Learning Network Members (2004)

Project Coordinator-Karen Helland
John Berman
Peggy Goergen
Brenda Brecke
Andrew Duncan, PhD
Kat Flores-Southwestern Director
Rick Howell-Superintendent
Tiffany Rush
Jim Moyer-Information Technology
Phil Waber-Superintendent
Bill Gehling-Superintendent
Steve Swisher-Superintendent
Duane Yecha-Superintendent
Karen Gray
Kenny Kent

Robert Smith

Director of Distance and Community Education
Tech-Prep Coordinator, Southwestern
Southwestern Associate Dean, Curry County
Southwestern Associate Dean, Workforce Development
Southwestern University Center
SOCC, Information Technology
South Coast Education Service District
South Coast ESD
North Bend School District
Coquille School District
Powers School District
Brookings School District
Reedsport School District
Coos Bay School District
Bandon School District
Gold Beach - School District
Langlois/Port Orford School District
Myrtle Point School District

South Coast Ports

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No port manager presently (Russ Crabtree, former port manager for Port of Brookings Harbor does some consulting work for the Port of Port Orford)

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Appendix 9 – Implementation Gantt Chart

The Gantt chart on the following pages likely will require adjustment, depending on adopted goals and action items. Note that a number of Action Items are ongoing activities.

	FY 06				FY 07				FY 08			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Goal 1 – Meet south coast regional distance education needs												
Action Item 1.1 – Collaborate and support healthcare education for nurses												
Action Item 1.2 – Develop and support allied healthcare education programs												
Action Item 1.3 – Identify and expand DE business course offerings												
Action Item 1.4 – Identify and expand DE course offerings in support of the trades												
Goal 2 – Support improved teaching and learning processes												
Action Item 2.1 – Host WebCT version 4 with DAS												
Action Item 2.2 – Develop a migration plan to WebCT version 6.0												
Action Item 2.3 – Develop faculty training for DE technology usage												
Action Item 2.4 –Coordinate DE IT needs with the strategic plan for SOCC IT												
Action Item 2.5 – Collaborate to create regional telecommunications solutions												
Action Item 2.6 – Address needs of minorities and other underserved audiences												
Action Item 2.7 – Address needs of outlying communities – learning centers												
Action Item 2.8 – Provide IPV at the SOCC Gold Beach Center												
Action Item 2.9 – Provide additional staff to support growth of DE												
Goal 3 – Identify funding strategies to meet future financial requirements												
Action Item 3.1 – Develop public-private partnerships												
Action Item 3.2 – Identify potential financial resources												
Goal 4 – Develop and sustain partnerships												

Action Item 4.1 – Intra-regional partnerships	[Redacted]											
Action Item 4.2 – Inter-regional partnerships	[Redacted]											
Goal 5 – Ensure public awareness of DE availability and its value	[Redacted]											
Action Item 5.1 – Develop a DE public information and education campaign												
Action Item 5.2 – Use the Web site and email to improve DE promotion			[Redacted]									

Appendix 10 - Endnotes

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- ² "Going the Extra Mile: Serving Distance Education Students," Elizabeth A. Buchanan, Ph.D., School of Library and Information Science, University of Wisconsin-Milwaukee, <http://www.westga.edu/~distance/buchanan31.html>, retrieved: March 2005
- ³ "Southwestern's Planning Grant Summary" submitted to the U.S. Department of Commerce Public Telecommunications Facilities Program (PTFP), Part V-Program Narrative, page 1
- ⁴ Southwestern Oregon Community College FAQ, http://www.socc.edu/dist_learn/faqs.html, retrieved: April 6, 2005
- ⁵ "Findings from the Condition of Education 2002: Nontraditional Undergraduates," NATIONAL CENTER FOR EDUCATION STATISTICS U. S. Department of Education, <http://nces.ed.gov/pubs2002/2002012.pdf>, retrieved: May 10, 2005
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- ⁸ *ibid*, "Using Technology as a Learning Tool, Not Just the Cool New Thing"
- ⁹ *ibid*, "Using Technology as a Learning Tool, Not Just the Cool New Thing"
- ¹⁰ "The 2005 Horizon Report," joint publication of the New Media Consortium (NMC) and the National Learning Infrastructure Initiative (NLII), an EDUCAUSE Program, http://www.nmc.org/pdf/2005_Horizon_Report.pdf, retrieved: July 7, 2005
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- ¹² "The Sustainability Challenge: Taking EdTech to the Next Level," Norris Dickard, Editor, The Benton Foundation and Education Development Center's Center for Children and Technology, March 2003, http://www.benton.org/publibrary/sustainability/sus_challenge.html, retrieved: June 10, 2005
- ¹³ *ibid*, "The Sustainability Challenge: Taking EdTech to the Next Level"
- ¹⁴ Oregon Labor Market Information System, Region 7 Overview, <http://www.qualityinfo.org/olmisj/Regions?area=000007&occtype=8&page=1>, retrieved: June 7, 2005
- ¹⁵ "Coos and Curry Population Growth Outpacing Oregon," Oregon Labor Market Information System, Guy Tauer, <http://olmis.emp.state.or.us/olmisj/ArticleReader?itemid=00004304>, retrieved: May 18, 2005
- ¹⁶ "PRC, PSU and age-sex details estimated by OEA based on Census Bureau's distributions, Forecasts of Oregon's County Populations by Age and Sex, 2000 – 2040," April 2004, <http://egov.oregon.gov/DAS/OEA/demographic.shtml>, retrieved: June 22, 2005

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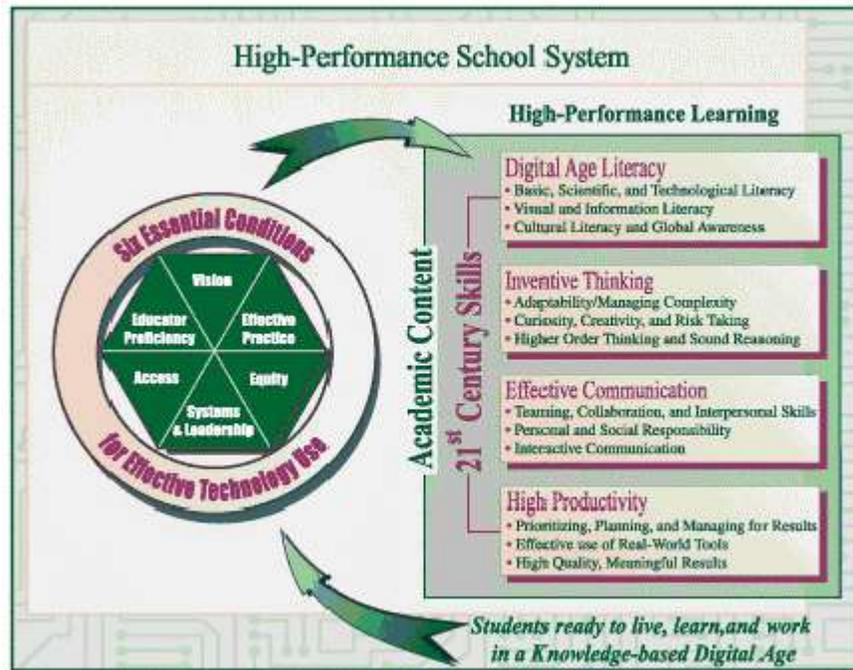
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Digital-Age Literacy includes the following:

Basic Literacy: Language proficiency (in English) and numeracy at levels necessary to function on the job and in society to achieve one's goals and to develop one's knowledge and potential in this Digital Age.

Scientific Literacy: Knowledge and understanding of the scientific concepts and processes required for personal decision making, participation in civic and cultural affairs, and economic productivity.

Economic Literacy: The ability to identify economic problems, alternatives, costs, and benefits; analyze the incentives at work in economic situations; examine the consequences of changes in economic conditions and public policies; collect and organize economic evidence; and weigh costs against benefits.

Technological Literacy: Knowledge about what technology is, how it works, what purposes it can serve, and how it can be used efficiently and effectively to achieve specific goals.

Visual Literacy: The ability to interpret, use, appreciate, and create images and video using both conventional and 21st century media in ways that advance thinking, decision making, communication, and learning.

Information Literacy: The ability to evaluate information across a range of media; recognize when information is needed; locate, synthesize, and use information effectively; and accomplish these functions using technology, communication networks, and electronic resources.

Multicultural Literacy: The ability to understand and appreciate the similarities and differences in the customs, values, and beliefs of one's own culture and the cultures of others.

Global Awareness: The recognition and understanding of interrelationships among international organizations, nation-states, public and private economic entities, sociocultural groups, and individuals across the globe.

Inventive Thinking is comprised of the following "life skills":

Adaptability and Managing Complexity: The ability to modify one's thinking, attitude, or behavior to be better suited to current or future environments; and the ability to handle multiple goals, tasks, and inputs, while understanding and adhering to constraints of time, resources, and systems (e.g., organizational, technological).

Self-Direction: The ability to set goals related to learning, plan for the achievement of those goals, independently manage time and effort, and independently assess the quality of learning and any products that result from the learning experience.

Curiosity: The desire to know or the spark of interest that leads to inquiry.

Creativity: The act of bringing something into existence that is genuinely new and original, whether personally (original only to the individual) or culturally (where the work adds significantly to a domain of culture as recognized by experts).

Risk Taking: The willingness to make mistakes, advocate unconventional or unpopular positions, or tackle extremely challenging problems without obvious solutions, such that one's personal growth, integrity, or accomplishments are enhanced.

Higher-Order Thinking and Sound Reasoning: The cognitive processes of analysis, comparison, inference and interpretation, evaluation, and synthesis applied to a range of academic domains and problem-solving contexts.

Effective Communication involves:

Teaming and Collaboration: Cooperative interaction between two or more individuals working together to solve problems, create novel products, or learn and master content.

Interpersonal Skills: The ability to read and manage the emotions, motivations, and behaviors of oneself and others during social interactions or in a social-interactive context.

Personal Responsibility: Depth and currency of knowledge about legal and ethical issues related to technology, combined with one's ability to apply this knowledge to achieve balance, integrity, and quality of life as a citizen, a family and community member, a learner, and a worker.

Social and Civic Responsibility: The ability to manage technology and govern its use in a way that promotes public good and protects society, the environment, and democratic ideals.

Interactive Communication: The generation of meaning through exchanges using a range of contemporary tools, transmissions, and processes.

High productivity currently is not a high-stakes focus of schools, yet the skills involved in this cluster often determine whether a person succeeds or fails in the workforce:

Prioritizing, Planning, and Managing for Results: The ability to organize to efficiently achieve the goals of a specific project or problem.

Effective Use of Real-World Tools: The ability to use real-world tools—the hardware, software, networking, and peripheral devices used by information technology (IT) workers to accomplish 21st century work—to communicate, collaborate, solve problems, and accomplish tasks.

Ability to Produce Relevant, High-Quality Products: The ability to produce intellectual, informational, or material products that serve authentic purposes and occur as a result of students using real-world tools to solve or communicate about real-world problems. These products include persuasive communications in any media (print, video, the Web, verbal presentation), synthesis of resources into more useable forms (databases, graphics, simulations), or refinement of questions that build upon what is known to advance one's own and others' understanding.

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