

# Distance Education Everywhere

---

(not “online” learning)

Myths

Realities

Possibilities

# It's A Last Mile World

---

“Civilization is in a race between  
education and disaster.”

H.G. Wells

# Need to Integrate Technology

---

“...in past focused on speed, new versions and upgrades - this is now of growing disinterest.”

Lou Gerstner

# ADEC & the Distant Learner

---

- Consortium of 60 state universities
- Includes HSIs, HBCUs & Tribal Colleges
- NSF Project: Advanced Internet Satellite Extension Project
- USDA Rural & Remote Education and Business Enterprises
- Hybrid Networking, Applications, Learning Effectiveness

# Myths

---

- “Promises, Promises” in the last mile
- Edges of the net have nothing to offer
- It’s mostly about technology - if we can’t easily get there it isn’t important
- Distance learning is about bandwidth and video lectures
- The Internet is about teen-agers
- All knowledge resides in U.S. cities, on campus and in government buildings

# Myths (cont.)

---

- We are manufacturing “tools” to fit the hand
- Distance education is not as good as learning on campus
- Regulation is benign

# ADEC Experience

---

- The “Internet” best thing to happen in the technology sphere in my lifetime
- Access to spectrum has been limited to rich, powerful and to the customers of the rich and powerful
- Incredible amount of confusion and nonsense disseminated from those who would protect status quo and those who would speak for the public

# ADEC Experience

---

- Consumers (all types) getting smarter
- Research agenda becoming focused on ubiquitous cyberinfrastructure
- Every person in the world is potentially an “internet” user - learner
- Auctions and Beauty Contests have been a disaster
- Set standards and regulate devices - we know how to do this



# Realities

---

- World is full of rural scattered populations - distance learners
- People are constantly on the move - need to learn from “anyplace”
- Very interesting people, environmental laboratories, cultures, customs at the edges of the network
- Much knowledge resides in global and local communities of interest

# Realities (cont.)

---

- The hand is contorted to fit the “tools”
- Ergonomics are generally disregarded
- Today’s networks are artifacts of monopolistic era - narrowband
- It’s mostly about money and who makes it - dangerous business: picking winners and losers
- More women than men learn by distance - do the shopping

# Realities (cont.)

---

- Distance Education is as good or better than campus based (no significant difference)
- Distance Education is about learning - educational designs can be adjusted to fit the delivery modes - continuous access is more important than speed
- Integration and interoperability key; complexity and high cost will kill innovation

# Possibilities

---

- No “strings” attached - wireless local loop, use of satellite - only game for rural/remote
- Design backwards from the edges of the network
- Focus on hybrid networking - standards and interoperability
- Cyberinfrastructure must extend everywhere

# Possibilities (Cont.)

---

- It has to be global - value of the net far greater with greater reach
- Collaborative virtual environments require mutual understanding, sharing, trust development - it's about people, organizations and applications
- Intellectual property, regulatory and spectrum issues are critical

# Will We Change?

---

- How we do business?
- Our organizations?
- Our ways of learning?
- Our ways of socially networking?
- Our ways of conducting education and research?
- Improve our abilities for breadth (global) and depth (local)?

# Wireless

---

- Key to inclusion
- Key to innovation
- Key to connectedness - we have gone from counting PCs to measuring BW to ability to be connected 24/7
- Must build better applications and appliances