LEARNING CENTERED APPLICATIONS & DIGITAL CONTENT

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disclaimer
or
two
MY OPINIONS
full responsibility
geek
So
comfort level
(not anti-social)
no eye contact
(just imagine how I feel about the whole netcast thing!)
so
4 things
• Statewide Course Management Systems
• Statewide academic K-20 Videoconferencing
• Video-on-Demand learning object repositories
• Pedagogical uses of advanced networks instructional and curricular integration
grand view
simply
education is going online
not
just
public ed
however
expectations
today’s 1st Graders
very high
just imagine
challenges
class 2019
will bring
to networkers
they will only know
great graphics
interesting
entertaining
video
on demand
unlimited music
right now
anyway
public ed
yes
colleges
universities
associates degrees
bachelors
graduate programs
(of course)
research
great expectations
everywhere
so
what?
how?
difficult
not one answer
so
consider
(with me)
ideas
big pipes
the UEN
big pipes
late '70s
microwave
north
east
southeast
southwest
video
distance education
great
(at the time)
broadcast quality
control
problems
bandwidth hog
limited capacity
expensive
mid 1990s
add satellite
the UEN & USU
good
more capacity
more students
but
quality degraded
one-way video & audio
very expensive
still
limited capacity
so
digital
compressed
t-1 circuits
add capacity
poor video & audio
Gigabit
backbone
higher education
district offices
secondary schools
great capacity
ip video everywhere
digital mcu$
replaced satellite system
(last summer)
upgrade backbone
10 gbps circuits
Gig circuits for elementary schools
huge community support
what else?
connectivity
more than just big pipes
access to
research networks
increasing
internet capacity
all seamlessly
the UEN
2000
50 mbps
sustained
abilene
ds-3
6.6 gbps capacity
additionally
applications
the UEN
supports
course management
distance education
video on demand
student information systems
data backup & recovery
filtering
intrusion detection
suite of security tools
security web site
consider
course management
access
students
faculty
reliability
critical
the UEN
hosts
WebCT
(now blackboard)
began innocently enough
3 years ago
pilot
just the back office stuff
account management at the sites
1 small node
no big deal
but
today
three nodes
2 locations
san
data backup
sis integration
4 institutions
5 new staff
funding for U of U
big headaches
(not that it’s a problem)
but
last fall
san issues
lost data
newspaper articles
national web site
ouch!
that stung
(the lesson here, don’t lose student data)
the UEN
video on demand
several flavors
e-media
home grown
web accessible
searchable
5000+ titles
(pbs)
more being added
(ken burns)
public and higher ed portals
(baseball, jazz, good stuff)
iTunes server
user friendly
fast
codian
record live sessions
archive
review later
mediasite
pre-record
web accessible
course management integration
(but I’ll get back to that later)
the UEN
supports
collaboration tools
wimba
breeze
ad hoc
conferencing
application sharing
big capacity
so
critical
provides
highly reliable
networks
applications
data
but
why UEN
what’s special
control costs
increase capacity
ensure reliability
in a word
opportunity
ubiquitous
imagination
(remember dixie state?)
using the network
meet needs
SO
important
provide
highly flexible
very reliable
huge capacity
well connected
future
new things
learning objects
great quote
"The main idea of 'learning objects' is to break educational content down into small chunks that can be reused in various learning environments, in the spirit of object-oriented programming" 

- David A. Wiley
ood for education
cool
(but, sadly, a different presentation)
So
growth
applications
data
increased network requirements
the UEN
available
capable
who knows
what’s next
so
stay relevant
prepare
next generation
applications
next generation
networks
(whatever that is)
but
if
wait
too late
thanks
(with apologies and appreciation to Dick Hardt and Lawrence Lessig)