

The Rocky Road to Digital v. 5.0

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PBS 2001 Technology Conference



Caveat #1

- **Those who tell you that they know how the transition to digital media will turn out, don't know what they're talking about.**



Caveat #2

Three months from now, these will be the old days, technologically speaking.



Caveat #3

**If aspects of the transition to
broadcast DTV don't make sense
to you . . .**



Caveat #3

If aspects of the transition to broadcast DTV don't make sense to you . . . it could be because they simply don't make sense



What We're Going to Talk About

- **What's really going on in the marketplace?**
- **What should we do while waiting for broadcast DTV to reach critical mass in the consumer marketplace?**
- **The “unified field theory”**



**The transition to broadcast
DTV is stalled - certainly in the
consumer marketplace**



DTV has enormous public service potential - we need to continue the buildout . . .



**... while analog TV will
remain our principal
distribution platform for the
next 5-10 years**



What's really going on in the marketplace?

- read the ads in the Sunday papers - primary research
- go to the local consumer electronics stores



What's really going on in the marketplace?

- eavesdrop on conversations between customers and sales people, and between customers
- don't be a know-it-all; it will ruin your "research" results



What's really going on in the marketplace?

- take a look at the analog displays
 - they're beautiful, and inexpensive
- take a look at all the other “good enough technologies” available to consumers



What's really going on in the marketplace?

DVDs

- **20,000,000 players by end of 2001**
- **“broadband in a box”**
- **driving sales of digital displays (along with DBS)**



What's really going on in the marketplace?

- **250,000,000 analog sets in USTVHH's**
- **35-50,000 (?) (that's thousand) DTV receivers in USTVHH's**



What's really going on in the marketplace?

- **27,000,000 analog sets will be sold this year**
- **Every analog set purchased now is a DTV receiver which won't be purchased in the next few years**



What's really going on in the marketplace?

- **Even Gary Shapiro said that he anticipates only 30% DTV set penetration by 2006**
- **And when Gary Shapiro says “DTV sets”, he doesn't mean “DTV receivers”**



Cable carriage is essential to expediting the rollout of broadcast DTV in the consumer marketplace.



What should we do while waiting for broadcast DTV to reach critical mass in the consumer marketplace?



While waiting for DTV . . .

Use the time to design and implement more efficient means to distribute programs to and among stations, and to our viewers



Efficient program distribution

**Beware of speeding into the future
with our eyes fixed firmly on the
rear view mirror**

**We need to design for the future,
not the past**



Efficient program distribution

**What proportion of the programs
in our stations' broadcast
schedules need to be delivered to
us in real time?**

**(Especially if we know about them
eight or more weeks in advance)**



If real time delivery is not required, think of alternatives to full bandwidth delivery



Alternatives to real-time delivery

- **Ralph's pretty good bicycle
(with DVDs or successor media
sent by mail)**
- **Downloading files from a
central storage facility, caching
them for local playout**



**Or, consider alternatives to
each station building a fully-
independent master control
facility**



Alternative models

- **Commercial station groups are moving toward clustered master control configurations**
- **PTV projects in NYC, Denver, Philadelphia, New Orleans**



Alternative models

- **ADDE (Advanced Digital Distribution Entity)**
- **(session today at 2:15PM)**
- **NPR Content Depot**



While waiting for DTV . . .

Use the time to learn the language
of emerging interactive media.



Bill Hendler from Chyron

“You don’t have to wait for digital broadcasting to start playing with interactive television.”



While waiting for DTV . . .

Use the time to develop other
distribution platforms.



Other distribution platforms

- DVDs
- streaming
- broadband
- interactive and enhanced television



While waiting for DTV . . .

Use the time to demonstrate how
DTV can be used for education.

- datacasting to school-based servers
- experiment with PC tuner cards



While waiting for DTV . . .

Use the time to develop and
implement system-wide asset
management standards



Asset management

**Every PTV station - to survive -
will be morphing into a
platform-agnostic digital library**



Asset management

The key to our success going forward will be organizing our editorial assets so that they can be easily retrieved and packaged in a manner appropriate to the distribution platform and the needs of the end users.



Asset Management

**We must become passionately
platform agnostic, and
passionate about asset
management**



Asset management

Ed Caleca's "public broadcasting
anytime, anywhere, 24/7"



Asset management

**To survive for the long-term,
content must be nomadic**

**We run the risk of developing 175
libraries, each with its own
version of the Dewey Decimal
System**



Asset management

Metcalfe's Law - The value of a network increases with the square of the number of computers attached to it.



Asset Management

The CPB “asset management
working group”



The “Unified Field Theory”

- the next interconnection system
- the master control of the future
- the DTV ATP project
- asset management



What We've Talked About

- **What's really going on in the marketplace?**
- **What we should do while waiting for broadcast DTV to reach critical mass**
- **The “unified field theory” of interconnection, master control, the DTV-ATP project, and asset management**



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