

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.



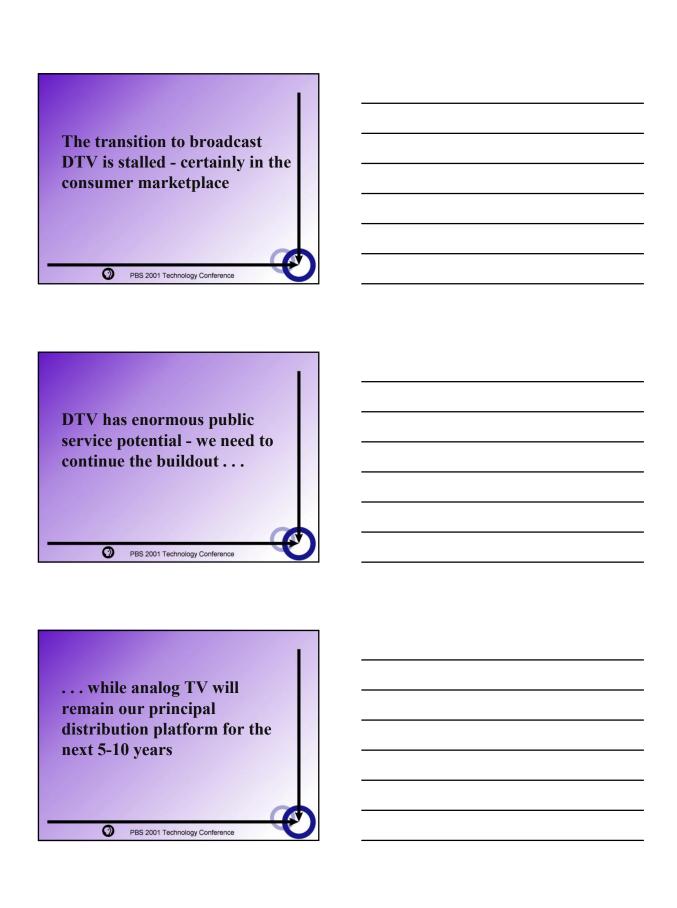
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Caveat #2

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 ... PBS 2001 Technology Conference 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 PBS 2001 Technology Conference 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" PBS 2001 Technology Conference



What's really going on in the marketplace?

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



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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



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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



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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)



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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



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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



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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"

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

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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 PBS 2001 Technology Conference **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 PBS 2001 Technology Conference **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) PBS 2001 Technology Conference

If real time delivery is not required, think of alternatives to full bandwidth delivery	
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Alternatives to real-time delivery	
Alternatives to real-time delivery - Ralph's pretty good bicycle (with DVDs or successor media sent by mail)	
- Ralph's pretty good bicycle (with DVDs or successor media	

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

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Alternative models

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

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Alternative models

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

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While waiting for DTV ...

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

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Bill Hendler from Chyron "You don't have to wait for digital broadcasting to start playing with interactive television." PBS 2001 Technology Conference



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

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While waiting for DTV...

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

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Asset management

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

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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. PBS 2001 Technology Conference **Asset Management** We must become passionately platform agnostic, and passionate about asset management PBS 2001 Technology Conference Asset management Ed Caleca's "public broadcasting anytime, anywhere, 24/7" PBS 2001 Technology Conference

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** PBS 2001 Technology Conference **Asset management** Metcalfe's Law - The value of a network increases with the square of the number of computers attached to it. PBS 2001 Technology Conference **Asset Management** The CPB "asset management working group" PBS 2001 Technology Conference

The "Unified Field Theory" • the next interconnection system • the master control of the future • the DTV ATP project • asset management

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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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The Rocky Road to Digital v. 5.0

David B. Liroff, VP & CTO WGBH Boston



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