

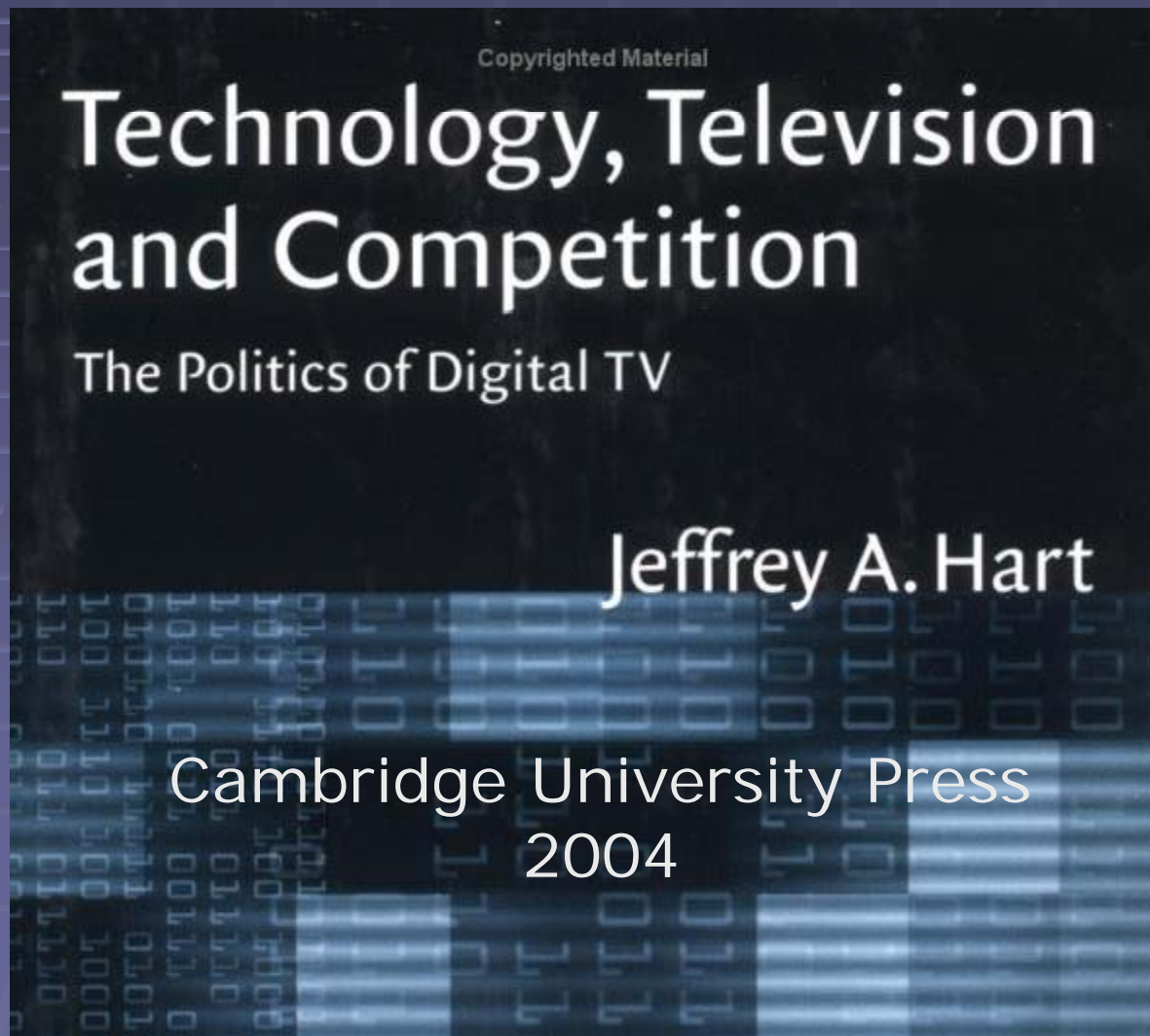
Digital TV Transitions:
DTV Switchover, Mobile TV, IPTV--
Lessons and Projections

Columbia Institute for Tele-Information (CITI)

The Transition to Digital Television in the United States: The Endgame

Jeffrey A. Hart
Indiana University
October 2, 2009

Plug for Book



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Technology, Television and Competition

The Politics of Digital TV

Jeffrey A. Hart

Cambridge University Press
2004

Other Important Books

- Joel Brinkley, [Defining Vision](#)
- Michel Dupagne and Pete Seel, [High-Definition Television: A Global Perspective](#)
- Hernan Galperin, [New Television, Old Politics](#)

Plug for New Journal



Editor: Michael Starks, Oxford

Associate Editors:

Jeffrey Hart, Indiana University

Jock Given, Swinburne University

International Journal
of Digital Television

US Response to Japanese and European HDTV Standards

- US rejected MUSE/Hi-Vision in 1988 after initial support
- FCC decided to back a digital TV standard in 1993
- US digital standards specified in FCC decisions in 1996 and 1997



Al Sikes



Reed Hundt



FCC DTV Standards Decisions as of 1996 and 1997

- Multiple DTV formats:
 - 480i and 480p
 - 720i and 720p
 - 1080i and 1080p
- All ATSC tuners must decode all formats; Broadcasters can pick and choose what format to broadcast
- All new TVs must have ATSC tuners by the end of 2007



Sinclair Challenges 8-VSB

- In 1999 Sinclair Broadcasting questioned the ATSC's choice of 8-VSB (Video Side Band) modulation of the over-the-air signal and petitioned the FCC for adoption of COFDM (used in the European DVB system) instead
- Although the FCC eventually denied the petition, planning for the transition to digital TV was delayed for about 2 years

Digital-Cable-Ready TVs and the CableCard

- CEA/NCTA Memorandum of Understanding in December 2002 calls for a “plug and play” format for one-way signals from cable to DTV sets
- FCC adopted the approach formally in September 2003
- FCC recommended the [CableCard](#) system
- Cable operators did not agree with proposals for two-way systems, despite set manufacturers preferences for them to do so



Switchover Decisions during the Bush Administration

- Set a deadline of Feb. 17, 2009
- Created and funded the converter box program
- Set up education programs
- Worked with industry, NGOs, and other organizations to ease the transition for the most vulnerable members of society

The FCC in 2004



L to R: Kevin Martin, Kathleen Abernathy, Michael Powell, Michael Copps, and Jonathan Adelstein

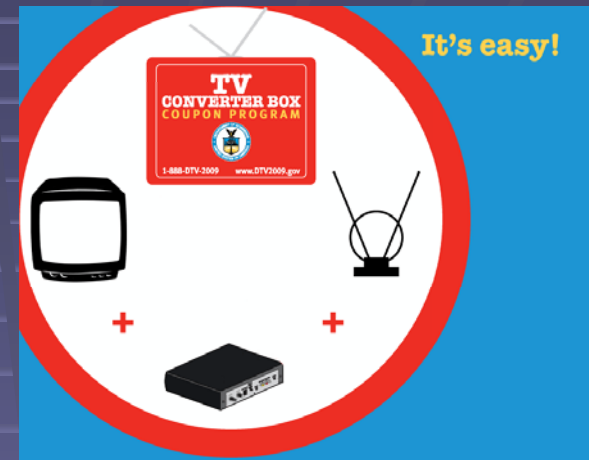
The FCC in 2008



Left to right Commissioners Tate (dissented on Comcast order), Copps (for), Chairman Martin (for), Adelstein (for), McDowell (dissented).

Converter Box Program

- Authorized in the Digital Television Transition and Public Safety Act of 2005
- Administered by the National Telecommunications and Information Administration (NTIA)



Converter Box Controversies

- Under funded
- NTIA refused to issue more coupons when people failed to redeem them
- Retailers were slow to stock converters or did not honor coupons when presented



Meredith Baker, NTIA
administrator

Education Program

- Initially left too much to industry and possibly under funded
- Polls showed people did not understand the transition
- Nielson data on ownership of DTV-ready sets by people who depended on over-the-air broadcasts showed many were “unready” for the transition

Obama Weighs In

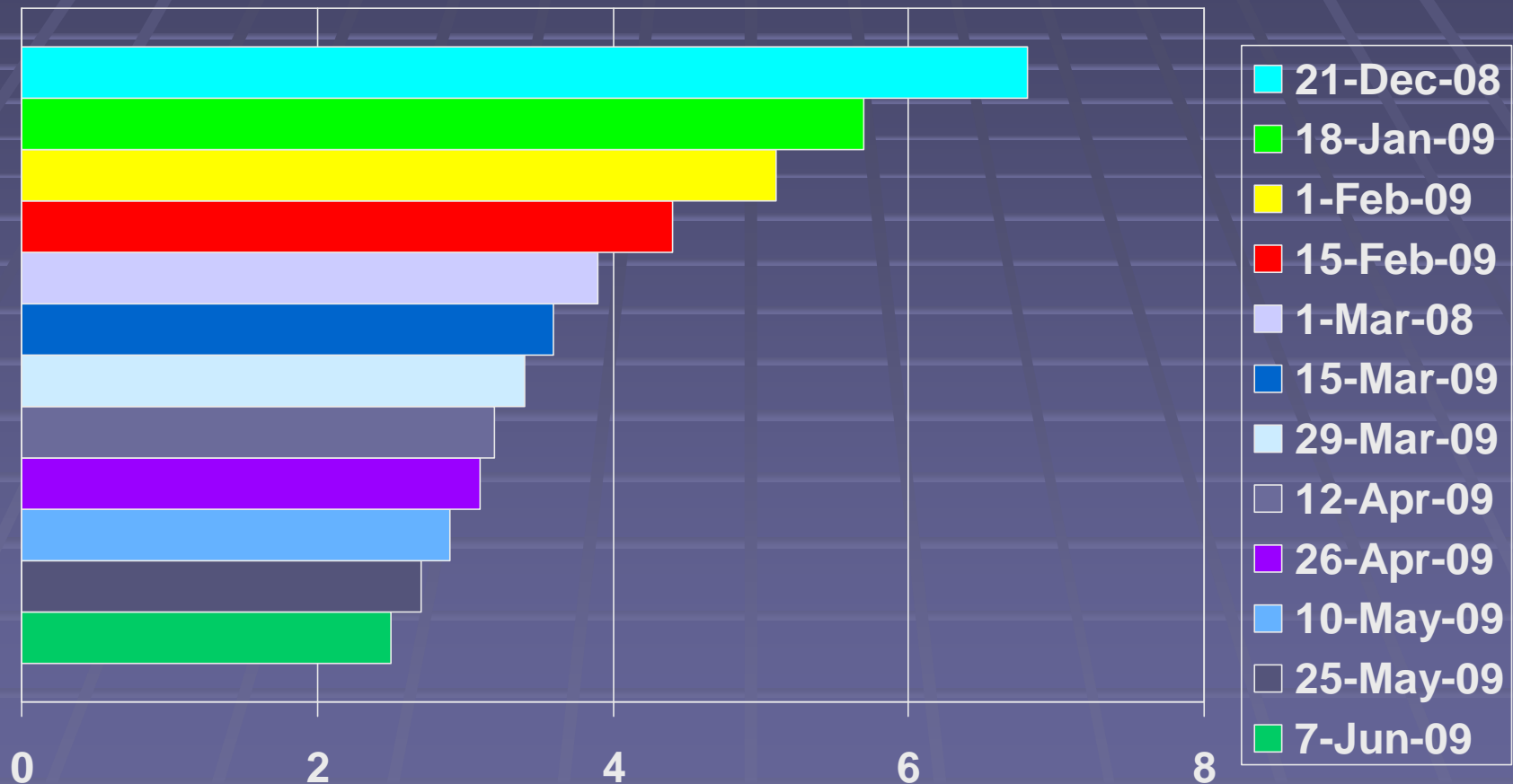
- Podesta letter of November 2008 supports passage of a bill to delay transition from February 2009 to June 2009
- Funding of converter box program increased using stimulus package funds

Obama Statement, Feb. 2009

- "Millions of Americans, including those in our most vulnerable communities, would have been left in the dark if the conversion had gone on as planned, and this solution is an important step forward as we work to get the nation ready for digital TV..."



Percentage of Households Unready for Analog Switch-Off



Source: The Nielson Company.

Final Questions

- Was the transition successful?
 - Yes, but still some problems remain (antennas, digital reception issues, LPTV transition still not complete)
- Would it have been successful without the final delay?
 - Perhaps, but adjustment costs for the poor and elderly would have been higher