

The Department of Telecommunications
presents
**Digital Television Transition in
Ohio: Challenges to Consumers and
the TV Industry**

<http://wbgustream.bgsu.edu/bgsu/dtvpanel/>

Moderator: Pat Fitzgerald, General Manager, WBGU-TV

•Christine Merritt, Executive Director, **Ohio Association of Broadcasters**: *Digital TV Transition in Ohio: An Overview*

•Patrick Deville, President and General Manager of Erie County Cablevision, **Ohio Cable Television Association**: *Digital Must Carry – the debate and how it will affect consumers and TV stations in Ohio*

•Bob Chirdon, Vice President and General Manager, and Steve Crum, Chief Engineer, **WTOL**: *The implementation of DTV transition by WTOL-Toledo*

•Dr. Louisa Ha, Professor, Dept. of Telecommunications, BGSU: *Ohio TV stations' digital TV education efforts and business models*

•Dr. Sung-Yeon Park, Assistant Professor, Dept of Telecommunications, BGSU: *DTV readiness of Northwest Ohio residents and WBGU-TV Viewers*

- Department of Telecommunications
 - Emerging Media Research Cluster
- School of Communication Studies

The Department of Telecommunications, Bowling Green State University

The mission of the Department of Telecommunications is to prepare future community and national leaders in the media industry and proficient communication professionals in all types of organizations. The Department of Telecommunications is home to more than 200 majors with more than 1,700 alumni working in various fields, many of whom are now top executives in major media companies such as Time Warner Cable, Sony Pictures Entertainment, Fox Sports Network, and Clear Channel. These distinguished alumni are members of our alumni advisory board.

With digitization and increasing convergence in the media and entertainment industry, more career opportunities are available for our graduates, who receive a well-rounded social science and professional skill curriculum in all aspects of the electronic media. The department is supported by professional facilities such as the TV studio, the public broadcast TV station WBGU, a FM radio station, WBGU-FM; and an online and cable radio station, WFAL; and various student media organizations that utilize these facilities such as BG24 News, BG Reel Productions, Bowling Green Radio Sports News Organization, and Bowling Green Radio News Organization.

The TCOM Department is a member department of the School of Communication Studies, which offers a master's and a Ph.D. degree program. All tenure-track faculty in the department are graduate faculty members serving in the graduate program. Students specialize in one of the four focus areas: 1) **Interactive Media**, 2) **Media Business**, 3) **Radio and 4) Television/Video**.

The department faculty is highly productive in publishing refereed scholarly journal articles and books. Between August 1, 2007 to July 31, 2008, the seven TCOM tenure-track faculty members produced 7 book chapters, 13 refereed journal articles, 4 invited articles, 2 conference proceedings, 8 invited conference papers and 13 peer-reviewed conference papers, amounting to a total of 47. Two faculty members individually produced more than 100 publications in their life-long research careers. Four of them received national and international research awards for their books and research articles including the Robert Picard Award for Books and Monographs in Media Management and Economics and Emerald Research Award of Dr. Louisa Ha, Covert Award for the Best Media History Article of Dr. Thomas Mascaro, The *Ecquid Novi* Award (Best Paper in Journalism Research) of Dr. Srinivas Melkote, and the Highly Commended Winner at the Emerald Literati Network Awards for Excellence of Dr. Gi Woong Yun. One faculty member received the first ever BGSU foreign-funded research grant and the project received continued support from a private foundation. In addition, one faculty member is serving as the associate editor of *Journalism and Mass Communication Quarterly*, the flagship journal in the field.

Panelists Biography

Patrick Fitzgerald, General Manager of WBGU-PBS and Director of Television Services Bowling Green State University

General Manager Patrick Fitzgerald began his career at WBGU in 1973 as a producer/director and he has led WBGU-PBS through the rapidly changing world of television since 1990. He oversees the station's broadcast services to its 18 county viewing area and Bowling Green State University's instructional television services including distance learning, CCTV, cable and satellite. During his tenure at WBGU-PBS, Pat has developed the planning and conversion to digital services for WBGU; fostered the growth of WBGU as a well-respected producer of quality programs for both local and national distribution. Also, Pat developed the funding and production of the highly acclaimed early elementary educational series Math Boosters and the award winning, multi-media MathTek and built the station's endowment to over \$1.5 million. In addition, Pat has also brought national recognition to WBGU with his work as a member of the Board of Directors for Public Broadcasting (PBS) for six years. He has also served on numerous PBS and CPB committees and task forces and was the national coordinator of the Small Station Association. Locally, he serves as a member of the Wood County Planning Commission and is a member of the Bowling Green Kiwanis Club.

Christine H. Merritt, Executive Vice President Ohio Association of Broadcasters

Christine Merritt is Executive Vice President of the Ohio Association of Broadcasters (OAB). The OAB is the statewide trade association representing the interests of the more than 300 radio and 50 television stations in Ohio. As OAB Executive Vice President, Christine lobbies on behalf of Ohio's commercial and non-commercial radio and television stations at the state and federal levels, and is responsible for all activities of the association. She also administers the Ohio Broadcasters Foundation, the OAB's educational foundation. Additionally, she currently serves as President-Elect of the National Alliance of State Broadcaster Associations, representing all fifty state broadcasters associations. Christine has more than twenty years of professional association management and legislative experience.

Patrick Deville, President and General Manager of Erie County Cablevision.

Ohio Cable Television Association

Patrick Deville is a 1972 graduate of Bowling Green State University with a B.S. in Education. Mr. Deville earned a Juris Doctor degree from the School of Law at the University of Toledo. He has worked for Buckeye CableSystem for almost 35 years. He is currently President and General Manager of Erie County Cablevision in Sandusky and Vice President of Programming for Buckeye Cable System. Mr. Deville has served on the Board of Directors for the Ohio Cable Telecommunications Association and was its president. He has also served on the Development Board and the Advisory Board of Firelands College, BGSU. A resident of Huron, Ohio, he is married to Mary Ann (Britton) and has two sons, Patrick and Jared. Mary Ann and Jared are also graduates of BGSU.

Bob Childron, Vice President and General Manager, and Steve Crum, Chief Engineer

WTOL

Bob Childron worked in sales for The Plain Dealer and then joined WEWS in Cleveland as an account executive. He worked there for almost 20 years, 12 of those in sales management. He joined WTOL, Toledo's News Leader, which was a Cosmos Broadcasting-owned, CBS affiliate, as General Sales Manager in April, 1999. He became Vice-President & General Manager in July, 2001. Bob has

served on many local boards including The Toledo Chamber of Commerce, The Toledo Red Cross, The YMCA/JCC, several ProMedica boards, The Ohio Association of Broadcasters, and others.

Steven Crum, Chief Engineer

WTOL

Steve Crum began his broadcasting career in 1973 as a part time disc jockey at WWKI in Kokomo, IN. While studying Aviation Electronics at Purdue University, he worked at the Purdue Telecommunications Center and WASK, Lafayette, IN. In 1976 he became Chief Engineer of WRSW AM/FM in Warsaw, IN, where he also hosted a weekend country music program and reported news. Mr. Crum soon moved to WMOH in Hamilton, OH, where he was Chief Engineer and part-time DJ. After 14 years in radio, he switched to television as a maintenance engineer for WKRC, Cincinnati and was soon promoted to transmitter supervisor. Mr. Crum became Chief Engineer of WUPW, FOX Toledo in 1995 to prepare that station for a joint news operation with WTOL and joined WTOL as Chief Engineer in 2007. He has recently managed the installation of a new digital transmission system and digital newsgathering equipment to prepare WTOL for the Big Switch.

Dr. Louisa Ha, Professor of Telecommunication

Bowling Green State University

Louisa Ha is a professor and acting chair in the Department of Telecommunications at Bowling Green State University, Ohio, U.S.A. and associate editor of *Journalism and Mass Communication Quarterly*, the flagship journal of the Association for Education in Journalism and Mass Communication (AEJMC). She is the founder and chair of the Emerging Media Research Cluster in the School of Communication Studies there. She created the International Advertising Resource Center Web Site at <http://www.bgsu.edu/departments/tcom/faculty/ha/intlad1.html> since 1996. Her research interests are media management and media convergence, media technologies, online advertising, media diversity, international communication and audience research. Her recently senior edited book, *Webcasting Worldwide: Business Models of an Emerging Global Medium*, received the AEJMC 2007 Robert Picard Award for Books and Monographs in Media Management and Economics and has been translated to Chinese and published by Tsinghua University Press in China. In addition to being the recipient of the 2006 Barry Sherman Teaching Award in Media Management and Economics for excellence and innovation in teaching, she has published over 30 refereed journal articles in refereed scholarly journals. She has received research grants from Emerald Research Award of the United Kingdom, the National Association of Broadcasters and the National Cable Center's Magness Institute. She received her Ph.D. in Mass Media from Michigan State University. Her Bachelor and M. Phil degrees in Communication were from the Chinese University of Hong Kong.

Dr. Sung-Yeon Park, Assistant Professor of Telecommunication

Bowling Green State University

Dr. Sung-Yeon Park holds a Ph.D. in Mass Communication from the the University of Wisconsin-Madison. Since 2004, she has been teaching in the BGSU Telecommunications Department where she is currently an assistant professor. Her teaching portfolio includes introduction to mass communication, media effects, gender and media, and advertising. As a researcher, she focuses on media effects on self and body image and user generated messages on online forums and discussion groups. She currently serves as an editorial board member of the journal, *Communication Research*.

Summaries of Presentations

Digital TV Transition in Ohio: An Overview

Christine Merritt

In 2005, Congress mandated that all full-power television stations in the United States must turn off their analog signals on February 17, 2009. In order to continue watching television after this date, all viewers must have a digital television set, subscribe to cable or satellite, or connect their television sets to a digital converter box.

To help Americans prepare for the DTV transition, Congress created a DTV converter box coupon program, through which every American household is eligible for two \$40 coupons to be used toward the purchase of a digital converter box.

Over the past year, television stations, along with the cable and consumer electronics industries, have undertaken a massive campaign to educate television viewers about the DTV transition. Here in Ohio, television stations have aired regular public services announcements, produced numerous news stories about the transition and have also promoted the transition at local events in their communities. Stations have also participated two statewide DTV tests since early December.

Estimates are that well over 90% of Americans are aware of the transition date. Despite these high levels of awareness, however, the latest Nielsen estimates are that more than 6.5 million homes in the United States are still unprepared for the transition. Additionally, the federal government's DTV coupon program has run out of money and has more than 3 million coupon applications on a waiting list.

With two weeks left until the transition date, Congress is considering delaying the transition until mid-June. While a delay will provide more time for those who are still unprepared, there is concern about the confusion that may result from the delay. Moreover, a delay poses numerous technical challenges for stations.

Digital Must Carry – the debate and how it will affect consumers and TV stations in Ohio

Pat Deville

First, cable customers will be set for the transition. They will not need to do anything to any TV set that is connected to cable, whenever the transition occurs. Second, different bandwidth will affect the number of channels that are available on cable systems. Systems with larger capacity have the potential to carry more signals. Small systems need relief from dual carriage. Finally I will address the first amendment issues of forcing additional broadcast channels on cable operators at the expense of cable programming.

Implementing Digital Television at WTOL-Toledo

Bob Chirdon and Steve Crum

History

WTOL began digital broadcasts on UHF channel 17 in 2002. Since that time a new digital STL, a new encoding system, and a new solid state digital transmitter has been installed for digital operation on VHF channel 11.

Why Change to Channel 11?

VHF propagation is different and we believe VHF will provide better reception. VHF operation requires less power, so it is more efficient and “greener” than UHF because the transmitter uses about 75% LESS electricity. Solid state transmitters are more reliable than tube-type transmitters and more economical to maintain. Solid state transmitters do not use tubes that wear out and must be replaced. VHF allows us to be non-directional providing service to almost 1.5 million additional analog viewers who would otherwise lose reception.

Digital News Gathering

WTOL has been recording and editing news in a digital format since the turn of the century. The images gathered in the field are edited and stored on servers where they are played out to air, the internet, and shared with other Raycom Media stations. WTOL recently deployed a fleet of digital microwave trucks for broadcasting live from the scene of breaking news. New technology allows for live broadcasts from moving vehicles, for the use of more fuel efficient vehicles, and even no vehicles with the Cam-Pac. WTOL also transmits live reports through wireless internet connections.

Still to Come

CBS programs are transmitted in HD (when available) but local programming originates in Standard Definition and is upconverted to HD. The installation of HD production equipment is yet to come. WTOL will begin broadcasting the OMVC standard on our digital signal later this year. This means that new cell phones, laptops, PDAs, and other mobile receivers will be able to receive WTOL programming. AND, of course, the BIG SWITCH itself and the preparations our viewers must make. WTOL and other stations in the Toledo market will change digital channels on 2/17 (maybe) and that will require a new channel scan on viewers' HDTVs and converter boxes. Some viewers are finding they need better antennas, others are finding they have too much antenna.

Ohio TV stations' digital TV education efforts and business models

Dr. Louisa Ha

Almost 70% of TV stations (68%) in Ohio do not change their programs when they are switching to digital with only one standard definition digital channel, even though they can multicast several channels, according to Louisa Ha's study of all 67 Ohio TV stations' digital transition. There are 51 full power stations and 16 low power stations in the study. Commercial TV stations fared much lower than non-commercial stations in terms of number of digital channels and on-air DTV education efforts.

Based on a review of the digital TV program guides, the October FCC 388 DTV quarterly activity station reports filed by full-powered TV stations, and an analysis of the content of the station's web site in November, 2008, her study reveals that 94% of stations stick to the branded content/brand integration business model of either sticking to the same programming or repackage its programs or broadcast in high definition. Only four stations adopt the content aggregator business model, which the station can serve as the affiliate of multiple networks such as WKRC uses one channel to run CBS programs and another for CW programs, or running other programs from other non-main channel's sources.

Non-commercial stations broadcast higher number of digital channels than commercial stations. PBS, with government funding support, broadcast on average 3 digital channels, while most commercial broadcast stations on average have only one digital channel only. Six PBS stations broadcast 4-5 digital channels. Commercial broadcast stations are much more cautious in the number of channels they offered. CBS affiliates are most aggressive in channel offering with an average of 1.83 channels, NBC affiliates' average is 1.78 and ABC affiliates' average 1.47 channels.

One interesting finding is that the number of channels the station offered does not increase the number of promotion of digital television spots in commercial TV. Probably it is due to the fact that most stations only comply with the minimum requirement. It only mildly positively correlates to extra efforts such as community speaking engagements and other outreach efforts. Multiple channels should require more education to the consumers about the different digital offerings. But not many stations provide program line up in their web sites. About only one half (54%) of station web sites show their program lineup. Even among those who have two or more digital channels, only 76% show their digital program line-ups.

In promoting digital television transition, an overwhelmingly majority of stations (92%) follow the government version of education materials such as DTV answers and about the DTV convertor box coupon program.

DTV readiness of Northwest Ohio residents and WBGU-TV Viewers

Dr. Sun-Yeon Park

Dr. Park 's project has two parts. This first one is WBGU New Member surveys. Between November 1 and November 16, 2008, 600 of WBGU-PBS' "newest" members were contacted by phone from inside the public television station's studio. Of those contacted, 256 participated in a new member phone survey. 25 students from the V section of TCOM 103 in Fall 2008 participated. The major findings of these survey are:

1) DTV readiness:

30% of WBGU-PBS members surveyed had at least one analog TV set receiving TV signals over-the-air, half of which were not ready for DTV; only 14% (of the 30% subset) were not aware of the government coupon program.

2) Awareness of the conversion

90% of WBGU-PBS members surveyed were aware of the national digital conversion deadline of February 17, 2009. However, less than half of the members surveyed (44%) were aware of WBGU-PBS' early conversion date of December 15th, 2008, in large part due to the fact that the bulk of the phone surveys were completed before the station began airing promos promoting the early conversion date

(after November 4, 2008). WBGU-PBS was not allowed to promote an early conversion date until after the station received FCC approval to shut down their analog transmitter.

3) Usage of DTV benefits

36% of WBGU-PBS members surveyed were aware of the four WBGU DTV channels available and were watching them. The majority (64%) were watching just one channel.

4) Other sources of DTV info

TV was the most dominant source of DTV information. 72% of WBGU-PBS members named "TV" (a lot of them stated "WBGU-PBS") as their source of DTV information. The second dominant answer category was "multiple sources" (17%) that also included TV along with other media. Other reported sources included: family (2.7%), newspapers (2.7%), Internet (2%), TV salesmen and cable companies (2%), friends (1.3%), and school teacher (0.4%)

Additionally, Dr. Park did surveys among general NW Ohio residents. Approx. 1000 surveys conducted over the phone, email, face-to-face. Students were asked to survey adults from their home town, no more than one from each household. More than 100 students in the large lecture section of TCOM 103 in Fall 2008 participated. Each student collected 10 surveys on average. The data are still being entered and the current analysis is based on 729 Ohio surveys. The major findings of these surveys are:

1) DTV readiness: "

23% of respondents had at least one analog TV set receiving TV signals over-the-air and 80% of them were not ready for DTV and nearly half of them (48%) were not aware of the government coupon program. The percentage of people who are partially prepared for the DTV conversion (18%) is equivalent to the number of Dayton area TV viewers who are partially prepared for the conversion (17.98%), as reported by Nielsen.

2) Awareness of the conversion

86% of the respondents were aware of the national digital conversion deadline of February 17, 2009.

3) Usage of DTV benefits

Less than half (44%) of the respondents were aware that many stations are now broadcasting different digital channels that could be received free, over-the-air, using an antenna.

4) Other sources of DTV info

TV was the most dominant source of DTV information. 59% of the respondents named "TV" as their source of DTV information. The second dominant answer category was "multiple sources" (16%) that also included TV along with other media. Other reported sources included: friends (6.3%), family (3.5%), Internet (3.5%), radio (2.1%), teacher/classes (1.4%), and cable companies (0.7%).