## AB Radio TechCheck



The Weekly NAB Newsletter for Radio Broadcast Engineers

**February 2, 2009** 

# NEW MEDIA RESEARCH EXPERT MIMI ITO TO KEYNOTE TECHNOLOGY LUNCHEON AT NAB SHOW

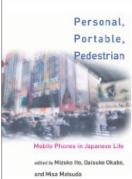
Renowned digital media research scientist Mimi Ito will keynote the NAB Technology Luncheon, exploring how people use new digital media and mobile technologies in their everyday lives. The Luncheon, part of the 63rd NAB Broadcast Engineering Conference (BEC) will be held Wednesday, April 22 in Las Vegas.

As a research scientist and cultural anthropologist, Ito primarily focuses on how children and young adults use communications technologies to establish and build relationships. She has studied a wide range of new media practices, from the production, distribution and marketing practices of children's software to the cultural effects of online gaming, social communities and other forms of digital media.

In addition to her studies in the United States, Ito's research group at Keio University studies mobile phone use. She also is researching English-language fandoms surrounding Japanese popular culture, especially anime, Japanese animated film.



Ito has worked on a variety of research projects, including the recently completed study titled Kids' Informal Learning with Digital Media, a three-year project examining how new media and digital technologies change the way children learn, play, socialize and participate in everyday life. She also coordinated 24/7: A DIY (do-it-yourself) Video Summit, an Internet video event that taught amateur video makers about digital and online video production and Internet distribution.



As an author, Ito co-edited *Personal, Portable, Pedestrian: Mobile Phones in Japanese Life* and co-wrote *Networked Publics*, a study of how social networking technologies transform the way people interact in day-to-day situations. She holds two doctorates from Stanford University in education and anthropology, and is currently a research scientist at the Institute for Multimedia Literacy (University of Southern California). Prior to this position, Ito worked for the Institute for Research and Learning, Xerox PARC, Tokyo University, the National Institute for Educational Research in Japan and Apple Computer.

You can find more out about Ito by reading her blog at: <a href="http://www.itofisher.com/mito/">http://www.itofisher.com/mito/</a>.

The Technology Luncheon also features the presentation of the prestigious NAB Engineering Achievement Awards. Since 1959, the awards have honored individuals who have made outstanding achievements and contributions in the broadcast engineering profession.

## 63<sup>rd</sup> NAB Broadcast Engineering Conference Session Schedule Radio Sessions

There are lots of sessions of interest to engineers involved in radio broadcasting. This world-class conference addresses the most recent developments in broadcast technology and focuses on the opportunities and challenges that face broadcast engineering professionals around the world. A must attend for practicing

broadcast engineers and technicians, engineering consultants, contract engineers, broadcast equipment manufacturers, distributors, R&D engineers plus anyone specifically interested in the latest broadcast technologies. The BEC begins on Saturday April 18 and runs through 5:00 p.m. on Thursday, April 23. Your registration to the BEC includes access to the Broadcast Management sessions and Super Sessions. For additional information on these sessions or to register go to the NAB Show Web site.

#### SBE Ennes Workshop - Continuing the Digital Transition

Saturday, April 18, 2009 8:00 a.m. - 5:00 p.m.

Chairperson Frederick Baumgartner, PBE, Director, Broadcast Engineering, Qualcomm MediaFLO, Inc.

8:00 a.m. Digital Transmission 101 Part 1

Donald Vanderweit, Application Engineer, Agilent Technologies, Inc.

9:00 a.m. Opening Remarks

John Poray, Executive Director, Society of Broadcast Engineers

9:10 a.m. Digital Transmission 101 Part 2

Donald Vanderweit, Application Engineer, Agilent Technologies, Inc.

9:55 a.m. IBOC Performance: The 1% or 10% Solution

Mike Starling, Vice President & Chief Technology Officer, National Public Radio

10:30 a.m. IBOC's Opportunities

Steve Dinsmore, iBiquity

11:00 a.m. Five Good Reasons to use a Tube for High Power FM+HD Radio

Geoffrey Mendenhall, Vice President - Transmission Research & Technology, Harris Communications

11:30 a.m. DTV Transmission Status

William Meintel, Partner, Meintel, Sgrignoli & Wallace

1:15 p.m. Implementing Mobile/Handheld

Wayne Bretl, Principal Engineer, Zenith Electronics LLC

Jay Adrick, President, Broadcast Technology, Harris Communications Division

2:45 p.m. Improving DTV and Mobile TV Coverage through On-Channel and Translator Technologies

Richard Schwartz, Vice President of Product Management, Axcera

3:30 p.m. DTV Maximization: The Value of the Power

Dennis Wallace, Managing Partner, Meintel, Sgrignoli, & Wallace

4:15 p.m. Antenna Choices for Digital Systems

Kerry Cozad, SVP, Engineering and Technology, Dielectric Communications

#### NAB Broadcast Engineering Conference Opening

Sunday, April 19, 2009 9:00 a.m. - 9:30 a.m.

Chairperson Lynn Claudy, Senior Vice President, Science & Technology, NAB

#### HD Radio Implementations and Improvements Part I

Sunday, April 19, 2009 9:30 a.m. - 11:30 a.m.

Chairperson Dom Bordonaro, Chief Engineer, Cox Radio, Inc.

9:30 a.m. On-Channel Repeater Implementation for HD Radio Coverage Improvement

Richard Redmond, Director of Strategic Marketing, Harris Corporation

10:00 a.m. Report from Brazilian Association of Broadcasting about of the Tests Results in AM and FM Stations that use the IBOC Standard

Ronald Barbosa, Master of Science by the Military Engineering Institute, ABERT - Brazilian Association of Broadcasting

10:30 a.m. High-Power, Common Amplification of FM+HD Radio Transmissions with Elevated Sideband Levels

Geoffrey Mendenhall, Vice President – Transmission Research & Technology, Harris Communications

11:00 a.m. FM+IBOC Broadcast Systems Architecture Considerations for Single Frequency Networks Philipp Schmid, Digital Design Engineer, Nautel

#### HD Radio Implementations and Improvements Part II

Sunday, April 19, 2009 1:00 p.m. - 4:30 p.m.

Moderator Dom Bordonaro, Chief Engineer, Cox Radio, Inc.

1:00 p.m. HD Radio in Romania

George Pletea, Radio Manager, 2M Prima Telecom SRL

1:30 p.m. FM Radio Reception in the D.C. Market for Various IBOC Power Levels

Sid Shumate, Senior Appraiser/Dir. of Engr., BIA Financial Network

Official NAB Privacy Policy

#### 2:00 p.m. Optimizing Analog + HD Radio Transport Over an Existing 950MHz STL Channel

Bob Band, Specialist, Harris Corporation

#### 2:30 p.m. IBOC Combining Schemes for 10dB Injection

Myron Fanton, Chief Engineer, RF Technology, Electronics Research, Inc.

#### 3:00 p.m. Field Reconfigurable HD Radio Combiner Provides a Path Forward

Peter Matthews, CEO, Mega Industries LLC

Henry Downs, VP, Engineering, Mega Industries LLC

### 3:30 p.m. Centralized and Multipoint Content Management and Control of HD Radio Networks via HD Protocol over IP

Tim Anderson, Product Line Manager, Harris Corporation

#### 4:00 p.m. FM Digital Radio Power Increase - an Update

Jeff Detweiler, Director of Broadcast Business Development, iBiquity Digital Corporation

#### Radio Engineering Forum Part I

Monday, April 20, 2009 10:30 a.m. - 12:00 p.m.

Chairperson Michael Cooney, Vice President of Engineering & CTO, Beasley Broadcast Group, Inc.

### 10:30 a.m. Has IP Heralded the Demise of ISDN / POTS Services? Advice on How to Set-up a Successful Remote using IP Links

Rolf Taylor, Applications Support, APT

#### 11:00 a.m. Data Delivery Capacity Over FM

Roswell Clark, Cox Radio - Tampa

### 11:30 a.m. Virtual LAN (VLAN) Segmentation for Radio Broadcasters. What your Network Administrator Needs to Know

Paul Shulins, Greater Media

#### Radio Engineering Forum Part II

Monday, April 20, 2009 1:00 p.m. - 5:30 p.m.

Chairperson Jeff Smith, Supervisor Broadcast/Studio Engineering, Clear Channel Radio - NYC

#### 1:00 p.m. Leveraging Standard IP Protocols for Audio Sharing

Tag Borland, President, Logitek Electronic Systems, Inc.

#### 1:30 p.m. CLEANER...Yet Still Loud!

Frank Foti, President, Omnia Audio

#### 2:00 p.m. 20 Things You Should Know Before Migrating Your Audio Network to IP

Thomas Knuchel, Sales Engineer, APT

#### 2:30 p.m. Next Generation Radio Networks

Frank Peters Sengers, Managing Director, Europe, International Datacasting Corporation

#### 3:00 p.m. MicroCasting - Applying Automation with Customization to Radio Station Affiliates

Kamy Merithew, VP of Marketing, WEGENER

#### 3:30 p.m. Send a High Quality Audio Feed From Anywhere

Harry Scott, Deputy Director, Program and Operations Support, Radio Free Asia

#### 4:00 p.m. Understanding and Using PPM Technology

Dwight Douglas, VP Marketing, RCS and Media Monitors

#### 4:30 p.m. Practical Strategies for Effective Remote PPM Monitoring

Stephen Dinkel, Director, North American Sales, Burk Technology

### 5:00 p.m. Tests of Digital Radio Broadcasting Potential to Cover a Large Area (Alaska) with Shortwave Signals

**Donald Messer** 

#### New Technologies for Radio

Tuesday, April 21, 2009 9:00 a.m. - 12:00 p.m.

Chairperson Milford Smith, Vice President, Engineering, Greater Media, Inc.,

#### 9:00 a.m. Energy Conservation in AM Broadcast Transmitters using Carrier Control Algorithms

Tim Hardy, Head of Research, Nautel

#### 9:30 a.m. Got Green? The Engineer's Guide

Nolan Stephany, Engineering Supervisor, WXXI Public Broadcasting Council

Andrew Janitschek, Radio Free Asia

### 10:00 a.m. The Application of Software-Defined Radio Technology to a Multi-Standard Exciter for Television and Radio Broadcast Systems

Kevin Berndsen, Software Engineer, Harris Corporation

#### 10:30 a.m. Using the Resource Description Framework (RDF) to Simplify Content Management

Ronald Reck, RRecktek LLC

David Baden, Chief Technical Officer, Radio Free Asia

#### 11:00 a.m. Implications of increasing Man Made Noise Floor levels on Radio Broadcasting

Charles Kelly, Director of Sales, Nautel

11:30 a.m. Same Basket - Different Eggs

Alex Kosiorek, Director of Recording Services, Cleveland Institute of Music

#### Antenna Solutions and Case Studies for Radio

Tuesday, April 21, 2009 1:00 p.m. - 5:00 p.m.

Chairperson Andy Laird, Vice President and Chief Technology Officer, Journal Broadcast Group, Inc.

#### 1:00 p.m. HD Radio-Combining – a New Solution to an Old Challenge

Bob Surette, Director of Sales Engineering, Shively Labs

1:30 p.m. An AM Directional Antenna and HD Radio

Thomas Ray III, VP/Corporate Director of Engineering, Buckley Radio

2:00 p.m. The NRSC IBOC Mask Measurement Guideline G201

David Maxson, Managing Partner, Broadcast Signal Lab

2:30 p.m. Real World Installation of AM HD Radio

Ray Klotz, Sierra Multimedia, Inc.

3:00 p.m. HD Radio Implementation Case Study: Dual-Polarized Master-Antenna

Myron Fanton, Chief Engineer, RF Technology, Electronics Research, Inc.

3:30 p.m. Easing the Transition to AM HD: Tools and Techniques to Help the Broadcaster

Brian Walker, Research Engineer, Nautel

4:00 p.m. High Level IBOC Combining Using Filters

Derek Small, Director, Filter Products, Myat Inc.

4:30 p.m. The Inaugural Installation of the First KinStar AM Low Profile Antenna

Tom King, President, Kintronic Labs, Inc.

#### Disaster Preparedness and Public Alerting

Wednesday, April 22, 2009 9:00 a.m. - 12:00 p.m.

Chairperson Clay Freinwald, Corporate Engineer, Entercom

9:00 a.m. Access to Emergency and Non-Emergency Broadcast Information for People with Disabilities

Geoff Freed, Project Director, Carl and Ruth Shapiro Family National Center for Accessible Media

9:30 a.m. Disaster Planning for Radio Stations

Gil Garcia, Disaster Response Coordinator, Clear Channel Radio

10:00 a.m. National VSAT -Safety Net

Steve Davis, Sr. Vice President, Engineering, Clear Channel Radio

10:30 a.m. One-Seg Technologies for Emergency Warning Services based on Digital Terrestrial Television Broadcasting --- Emergency Warning Broadcasting and Earthquake Early Warning

Kenichi Murayama, Principal Research Engineer, NHK (Japan Broadcasting Corporation) / Science and **Technical Research Laboratories** 

11:00 a.m. Emergency Preparedness: Essential Elements for Business Continuity When Disasters

James Capps, Executive Director, Systems Engineering & Integrated Technology, Comcast Media Center 11:30 a.m. Predictable, Expected and Certain - Ensuring Reliable Power Protection at Cable TV Headends

Julian Rachman, Principal, Broadcast and Datacenter Division, DFW Consulting Group, Inc.

Gary Rackow, Vice President, Americas, Active Power, Inc.

#### New AM Technical Rules

Wednesday, April 22, 2009 9:00 a.m. - 11:00 a.m.

Moderator Cris Alexander, Director of Engineering, Crawford Broadcasting Company

9:00 a.m. New AM Technical Rules -- Current Rule Making Status, History and Benefits

Raymond Benedict, CPBE, President, Society of Broadcast Engineers

9:30 a.m. Modeling AM Arrays

Benjamin Dawson, President, Hatfield and Dawson

10:00 a.m. Field Measurements for AM Modeling

Ronald Rackley, Partner, du Treil, Lundin and Rackley, Inc.

10:30 a.m. New AM Technical Rules -- Panel Discussion

E. Glynn Walden, Sr. VP Engineering, CBS Radio

Benjamin Dawson, President, Hatfield and Dawson Raymond Benedict, CPBE, President, Society of Broadcast Engineers Cris Alexander, Director of Engineering, Crawford Broadcasting Company

#### Towers and Transmission Systems Part I

Wednesday, April 22, 2009 11:00 a.m. - 12:00 p.m.

Chairperson John Lyons, Asst Vice President/Director Broadcast/Comm, The Durst Organization

11:00 a.m. Tower Failures Resulting from Hidden Galvanic Corrosion

David Davies, Director, Structural Products & Services, ERI - Electronics Research, Inc.

11:30 a.m. Application of High Power Radio Frequency Loads and Attenuators in Digital Broadcast Systems

Tim Holt, Director, Systems Engineering, Bird Electronic Corporation

#### **Towers & Transmission Systems Part II**

Wednesday, April 22, 2009 2:00 p.m. - 6:00 p.m.

Chairperson John Lyons, Asst Vice President/Director Broadcast/Comm, The Durst Organization

2:00 p.m. The Application of New LD-MOS Technology to a UHF Multimedia Transmitter Design Martyn Horspool, Product Manager, Harris Corporation

2:30 p.m. The New FCC Rules for Distributed Transmission Systems (DTS)

S. Merrill Weiss, President, Merrill Weiss Group LLC

3:00 p.m. Coverage and Interference Analysis of Distributed Transmission Systems

William Meintel, Partner, Meintel, Sgrignoli & Wallace

**3:30 p.m. Peak Power Ratings for Transmission Line Carrying Multi-Channel OFDM Broadcasts** Daniel Fallon, Senior RF Engineer, Electronics Research Inc

4:00 p.m. Improved Lightning Protection for Radio Transmitter Stations.

John Pinks, Chief Engineer Emeritus, Nautel

4:30 p.m. New Consensus Standards for Construction Rigging and Protocol

Don Doty, President, Stainless LLC

5:00 p.m. RF Measurement Techniques for Broadcast Engineers

Myron Fanton, Chief Engineer, RF Technology, Electronics Research, Inc.

5:30 p.m. DVB-T2 deployment and impacts

Regis Le Roux, President and CEO, Enensys Technologies



