

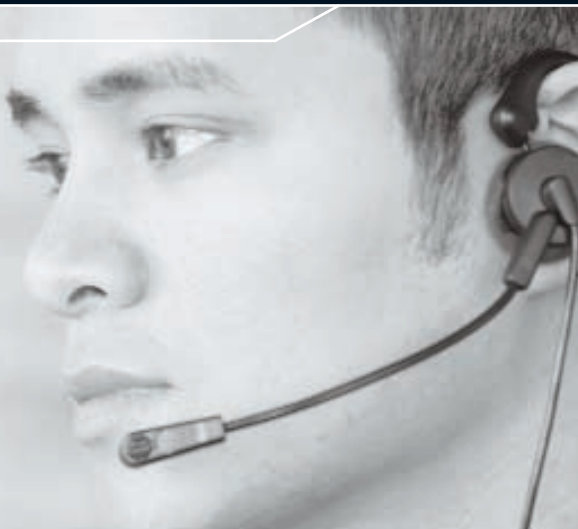
AUGUST 18–20, 2008

NEW YORK MARRIOTT MARQUIS

NEW YORK CITY

# SpeechTEK | 2008

The Voice Solutions Showcase



SPEECH IN THE MAINSTREAM

WWW.SPEECHTEK.COM

## KEYNOTE SPEAKERS

- ◆ Analytics
- ◆ Natural Language
- ◆ Security
- ◆ Voice User Interfaces
- ◆ Mobile Devices
- ◆ Multimodal
- ◆ Video and Speech
- ◆ Testing and Tuning

Gold Sponsors:



Silver Sponsor:



Media Sponsors:



**Ray Kurzweil**  
author of *The Age of Spiritual Machines* and  
*The Age of Intelligent Machines*



**Lior Arussy**  
President, Strativity Group  
author of *Excellence Every Day*



**Kevin Mitnick**  
author, world-famous  
(former) hacker, &  
security consultant



Organized and produced by  
**Information Today, Inc.**

# Welcome to SpeechTEK 2008

## Speech in the Mainstream

**SpeechTEK | 2008**  
The Voice Solutions Showcase

Last year we recognized that the speech industry was at a tipping point, or the point at which change becomes unstoppable. To illustrate this point, we featured Malcolm Gladwell, author of the best-selling book, *The Tipping Point*, as our keynote speaker. Not surprisingly, a lot has happened since the industry tipped: We're seeing speech technology in economy-class cars and advertised on television to millions of households, popular video games with more robust voice commands, and retail shelves stocked with affordable, speech-enabled aftermarket navigation systems. It's clear that speech is in the mainstream—the focus of this year's conference.

Speech technology has become mainstream for organizations seeking operational efficiencies through self-service. For enterprises, speech enables employees to reset passwords, sign up for benefits, and find information on company policies and procedures. In healthcare, doctors have long used speech dictation systems to record symptoms and diagnosis; healthcare organizations are beginning to use speech to contact patients for appointment management, report test results, and for healthcare management. Government organizations use speech technologies to better serve their constituencies. During the 2007 California wildfire season, local government voice systems notified thousands of homeowners of potential fire danger, which was likely the leading reason for so few deaths. Speech has clearly made a positive impact on many people and organizations. At SpeechTEK 2008, a variety of organizations will explain how they are succeeding with speech technology as well.

SpeechTEK 2008 is the world's biggest speech technology conference and exhibition. Nowhere else can you find so much information on the latest ideas, technologies, services, and solutions. This year, we offer more leading-edge information and opportunities for interaction with industry movers and shakers.

Keep your company in the speech technology mainstream by attending SpeechTEK 2008 and discussing how these exciting new technologies will drive the future. This program describes the many activities and opportunities that will help your company chart a successful course with speech technology.

**Welcome to SpeechTEK 2008, our best conference ever.**



Please recycle this program.

## HEAR THESE TOPICS AND MORE:

- ◆ The state of the speech technology industry
- ◆ What you need to know to get started on a speech project
- ◆ Getting management's commitment early in the process
- ◆ How to monitor and manage your speech application throughout its lifecycle
- ◆ Techniques for using nontraditional data to deliver a rapid round of tuning
- ◆ How human guides have improved service for retail self-service applications

## PLUS SPECIAL TRACKS:

### Meeting Business Goals with Speech Technology

- ◆ A new track designed specifically for Business Executives and Managers

### Advanced Speech Technologies Symposium

- ◆ A 2-day track covering advanced dialogue techniques, machine translation, natural language, and more.

## Evening Receptions

SpeechTEK invites attendees with a Networking Pass or above to a Welcome Reception Monday evening in the Exhibit Hall from 5:00 p.m. – 7:00 p.m. sponsored by Angel.com as well as the Tuesday evening reception from 5:30 p.m. – 7:00 p.m. on the 9th floor. Mingle with exhibitors, speakers, and conference attendees while enjoying a glass of wine and hors d'oeuvres.

## CD-ROMs

Most sessions are being recorded and CD-ROMs may be purchased at the conference. Visit the Digital Record table (please ask at the registration desk for exact location) for more information or visit [www.digitalrecord.org](http://www.digitalrecord.org).

## Press Room/Media Center

sponsored by **CONVERGY'S**  
Outthinking Outdoing

The press area will be available in the Gilbert Room on the 4th floor Monday from 9:00 a.m. – 7:00 p.m., Tuesday from 9:00 a.m. – 6:30 p.m., and Wednesday from 9:00 a.m. – 4:00 p.m.

## Presentation Links

Get access to many PowerPoint presentations and websites used in conjunction with the SpeechTEK 2008 sessions! Links will be posted on the SpeechTEK.com website soon after the conference.

## Sunrise Semester Discussions

SpeechTEK will host early morning discussions for business professionals, project leaders, designers, and developers to openly talk about a variety of topics. This is a great opportunity for attendees to network, discuss challenges, and share ideas with peers and speech technology professionals.

## SpeechTEK University

If you are considering deploying a speech application or looking to increase your knowledgebase, be sure to attend a SpeechTEK University course. SpeechTEK University courses are in-depth, focused, 3-hour seminars on topics of special interest to speech technology and information technology professionals taught by experienced instructors. These are separately priced or may be purchased as part of your conference registration. See pages 8 – 9 for more details.

## SpeechTEK Labs

This year marks our first SpeechTEK Labs, in which attendees can sample the latest speech technology products, talk to developers, and speak openly to our expert panel of judges about the technology. These sessions, which take place in the Exhibit Hall on Tuesday and Wednesday, will provide objective evaluations of new speech technology and show how speech is breaking new ground in various industries. Attendees will have the opportunity to evaluate speech products in three categories: multimodal applications, speech tools, and voice-activated games. As an added benefit, after the lab, the judges will issue ratings of the tools to provide further guidance. For complete descriptions, see page 32.

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## Continental Breakfast & Coffee Breaks

A continental breakfast will be provided for conference attendees each morning from 8:00 a.m. to 9:00 a.m. before the keynote session. Additional coffee breaks will take place each morning and afternoon. Please check the schedule for exact times and locations.

## Speech Technology Magazine Awards

While at the conference, find out the winners of *Speech Technology* magazine's 2008 Speech Industry awards.

## Email Stations

Email stations will be open in the Exhibit Hall during regular exhibit hours for attendees to check their e-mail.

## Exhibit Hall Hours

Monday, August 18 . . . . . 5:00 p.m. – 7:00 p.m.  
Tuesday, August 19 . . . . . 10:00 a.m. – 5:30 p.m.  
Wednesday, August 20 . . . . . 10:00 a.m. – 2:00 p.m.

## Registration Desk Hours

Sunday, August 17 . . . . . 1:00 p.m. – 7:00 p.m.  
Monday, August 18 . . . . . 7:00 a.m. – 7:00 p.m.  
Tuesday, August 19 . . . . . 7:30 a.m. – 5:30 p.m.  
Wednesday, August 20 . . . . . 8:00 a.m. – 2:00 p.m.  
Thursday, August 21 . . . . . 8:00 a.m. – 1:30 p.m.

# SpeechTEK | 2008

The Voice Solutions Showcase

## Speech in the Mainstream and Beyond



**MONDAY ♦ 9:00 a.m. – 10:00 a.m.**

**Ray Kurzweil**, author of *The Age of Spiritual Machines: When Computers Exceed Human Intelligence* and *The Age of Intelligent Machines*. We're living in a world of rapid technological innovation and increasing pervasiveness of information technology.

Consumers not only appreciate these advances in their professional and personal lives, they are demanding it. What does this mean for those who are driving development and acceptance of speech technology? Glean insight from one of the most distinguished speech technology innovators of our time, Ray Kurzweil, who will share his views on how speech technology will work in conjunction with other emerging technologies to bring us to an age of intelligent machines.

## SPONSORED KEYNOTE LUNCHEONS



### Phone 2.0: The Mobile Generation at Work

Sponsored by  VoiceObjects

**MONDAY ♦ 12:00 p.m. – 1:15 p.m.**

**Beatriz V. Infante**, President and CEO, VoiceObjects, Inc.

### Remember Me: A Case Study on Personalized Self-Service

Sponsored by  Tellme.  
A Microsoft® Subsidiary

**TUESDAY ♦ 12:30 p.m. – 1:45 p.m.**

**Tracy Griffith**, Sr. Manager Customer Technology Reservations & Premium Services, American Airlines

## SpeechTEK Labs

This year marks our first SpeechTEK Labs, in which attendees can sample the latest speech technology products, talk to developers, and speak openly to our expert panel of judges about the technology. These sessions, which take place in the Exhibit Hall on Tuesday and Wednesday, will provide objective evaluations of new speech technology and show how speech is breaking new ground in various industries. Attendees will have the opportunity to evaluate speech products in three categories: multimodal applications, speech tools, and voice-activated games. As an added benefit, after the lab, the judges will issue ratings of the tools to provide further guidance.

All Keynotes and Sponsored Keynote lunches will take place in the Broadway Ballroom on the 6th floor.

## Preparing for the New Consumer



**TUESDAY ♦ 9:00 a.m. – 10:00 a.m.**

**Lior Arussy**, author of several books, including his most recent, *Excellence Every Day: Make the Daily Choice—Inspire Your Employees and Amaze Your Customers* (Information Today, Inc.)

Despite technological innovations, companies are failing to meet increasing customer expectations. To stay competitive, organizations must meet customers' growing demands by incorporating new ways of thinking, connecting, and doing business that will create profitable and delightful customer experiences. Lior Arussy is a renowned author; business visionary; creative catalyst; and president of Strativity Group, a consultancy which advises Global 2000 companies and emerging businesses around the world. Arussy will address the biggest customer strategy issues facing organizations today, such as the new rules of customer engagement, and offer suggestions on how to better prepare for the new consumer.

## The Art of Deception: Are You in Danger of Being 'Conned'?



**WEDNESDAY ♦ 8:45 a.m. – 10:00 a.m.**

**Kevin Mitnick**, author, world-famous (former) hacker, and security consultant

As more businesses and consumers depend on speech technology, it's becoming increasingly important to protect your investments. With more than 15 years of experience in exploring computer security, Kevin Mitnick is a largely self-taught expert in exposing the vulnerabilities of complex operating systems and telecommunications devices. As the world's most famous (former) hacker, Mitnick has been the subject of countless news and magazine articles published throughout the world. Mitnick will share how hackers compromise your security and what you can do about it.

### TUESDAY, AUGUST 19

10:45 a.m. – 12:30 p.m.

#### Tools for Speech Applications

MODERATOR:

**Moshe Yudkowsky**,  
Disaggregate

1:45 p.m. – 3:30 p.m.

#### Voice-Activated Games

MODERATOR:

**David Thomson**, CTO,  
SpeechPhone

### WEDNESDAY, AUGUST 20

10:45 a.m. – 12:30 p.m.

#### Multimodal Application Lab

MODERATOR:

**Deborah Dahl**, Principal,  
Conversational Technologies

*For complete descriptions and company listings, see page 32.*

**AD**



ALL KEYNOTES WILL BE HELD IN THE BROADWAY BALLROOM, 6TH FLOOR.

9:00 a.m. –  
10:00 a.m.

## WELCOME & OPENING KEYNOTE ♦ Speech in the Mainstream and Beyond ♦ Ray Kurzweil

10:15 a.m. –  
11:00 a.m.

**TRACK A** ♦ Soho Complex (7th Floor)

### MEETING BUSINESS GOALS WITH SPEECH TECHNOLOGY

**A101 Mainstream Speech 2008: The State of the Industry**  
Tim Pearce, Mike Bergelson, Bonnie Crater, Monique Bozeman

11:15 a.m. –  
12:00 p.m.

**A102 Planning for Speech**  
Catherine Zhu, Caroline Nelson

12:00 p.m. –  
1:15 p.m.

### SPONSORED KEYNOTE LUNCH ♦ Sponsored by VoiceObjects

1:15 p.m. –  
2:00 p.m.

**A103 Preventive Medicine: Keeping Your Speech System Healthy**  
Fran McTernan, Ingo Bors

2:15 p.m. –  
3:00 p.m.

**A104 Agile Speech Projects**  
Charles Lewis, Leslie Carroll Walker

3:15 p.m. –  
4:00 p.m.

**A105 CCS: Speech in Financial Services**  
Glen Graham, Ricardo de Carvalho Destro

4:15 p.m. –  
5:00 p.m.

**A106 The Business of Speech Analytics**  
Michael Codini, Greg Borton, & Cliff LaCoursiere

5:00 p.m. –  
7:00 p.m.

### EXHIBIT HALL GRAND OPENING & WELCOME RECEPTION ♦ In the Exhibit Hall ♦ Sponsored by

**TRACK B** ♦ Empire Complex (7th Floor)

### VUI DESIGN PRINCIPLES & TECHNIQUES

**B101 What End Users Really Want**  
Jenni McKenzie, Moshe Yudkowsky

**B102 Managing Client/Vendor Relationships**  
David Martin, Jessica Stevens & Jenny Burr

### Phone 2.0: The Mobile Generation at Work ♦ Beatriz V. Infante

**B103 Reverse Navigation Hands-On Session**  
Peter Krogh

**B104 Universal Commands**  
James Mesbur & Karen Moylé, Rita Dhruve

**B105 Lessons in Multimodal Usability**  
Eduardo Olvera, Matt Prather

**B106 How May I Help You?**  
Charles Galles, Mary Constance Parks

9:00 a.m. –  
10:00 a.m.

## KEYNOTE ♦ Preparing for the New Consumer ♦ Lior Arussy

10:00 a.m. –  
10:45 a.m.

### BREAK ♦ Visit the Exhibits

**TRACK A** ♦ Soho Complex (7th Floor)

### MEETING BUSINESS GOALS WITH SPEECH TECHNOLOGY

10:45 a.m. –  
11:30 a.m.

**A201 Speech: Thinking Out of the Box**  
Moshe Yudkowsky, Whitney Quesenberry, Steve Chirokas

11:45 a.m. –  
12:30 p.m.

**A202 Video in the Network and Call Center**  
Bob Cooper, Rob Marchand

12:30 p.m. –  
1:45 p.m.

### SPONSORED KEYNOTE LUNCH ♦ Sponsored by Tellme. ♦ A Case Study on Personalized Self-Service ♦ Tracy Griffith

1:45 p.m. –  
2:30 p.m.

**A203 Cross-Channel User Experience**  
Lizanne Kaiser, Elaine Cascio

2:45 p.m. –  
3:30 p.m.

**A204 Speech in CPG/Retail**  
Tom Scott, Michael Jacks

3:30 p.m. –  
4:15 p.m.

### BREAK ♦ Visit the Exhibits

4:15 p.m. –  
5:15 p.m.

**A205 The VUI Backlash**  
Ahmed Bouzid, Simonie Wilson, Nick Ezzo

5:30 p.m. –  
7:00 p.m.

### RECEPTION ♦ On the 9th Floor

**TRACK B** ♦ Empire Complex (7th Floor)

### VUI DESIGN PRINCIPLES & TECHNIQUES

**B201 How Do You VUI?**  
Bruce Balentine & Ken Rehor, David Suenderman & Ethan Levine

**B202 Inaugural Meeting of the Association for Voice Interaction Design**

### A Case Study on Personalized Self-Service ♦ Tracy Griffith

**B203 Business Problems, VUI Answers**  
Mark Webb, Daniel Padgett

**B204 VUI Design for Multimodal Applications**  
David Thornton, Juan Gilbert

**B205 Driving the Conversation Forward in the Face of Errors**  
Simsar, Bloom & Liscombe; Peterson

8:45 a.m. –  
10:00 a.m.

## KEYNOTE ♦ The Art of Deception: Are You in Danger of Being 'Conned'? ♦ Kevin Mitnick

10:00 a.m. –  
10:45 a.m.

### BREAK ♦ Visit the Exhibits

**TRACK A** ♦ Soho Complex (7th Floor)

### MEETING BUSINESS GOALS WITH SPEECH TECHNOLOGY

10:45 a.m. –  
11:30 a.m.

**A301 Customer Satisfaction 2008**  
Lynda Kate Smith, Michael Codini

11:45 a.m. –  
12:30 p.m.

**A302 DTMF Versus Speech**  
Daria Tucker, Matt Whipple

12:30 p.m. –  
1:45 p.m.

### LUNCH BREAK ♦ Visit the Exhibits

1:45 p.m. –  
2:30 p.m.

**A303 Security for Speech**  
Steven Cawn, Kris Herrin

2:45 p.m. –  
3:30 p.m.

**A304 The Crystal Ball**  
Judith Markowitz, Daniel Hong, Bill Meisel

**TRACK B** ♦ Empire Complex (7th Floor)

### VUI DESIGN PRINCIPLES & TECHNIQUES

**B301 Making VUIs Even Better**  
Patrick Nguyen, Bob Cooper

**B302 Designing for Spanish**  
Sondra Ahlen, Jose Elizondo

**B303 Happy Together? Speech & Touchtone**  
David Attwater, Phil Shinn

**B304 The Ultimate VUI Showdown**  
Balentine, Bouzid, Brill, Kaiser, Krogh & Strand

## Sunrise Semester Discussions ♦ 8:00 a.m. – 8:50 a.m.

SpeechTEK will host early morning discussions in the Royale Room (6th floor) for business professionals, project leaders, designers, and developers to openly talk about a variety of topics.

## MONDAY, AUGUST 18

**DISCUSSION 1** Emotion in Speech Technology ♦ Baggia

**DISCUSSION 2** The Effectiveness of Marketing Messages ♦ Rogers

## AUGUST 18–20, 2008 ♦ NEW YORK MARRIOTT MARQUIS, NEW YORK CITY

## MONDAY, AUGUST 18

**TRACK C** ♦ Majestic Complex (6th Floor)

### ADVANCED SPEECH TECHNOLOGIES SYMPOSIUM

**C101 Advanced ASR: A Global Perspective**  
Roberto Pieraccini

**C102 Application of Advanced ASR**  
Marsal Gavalda, Vlad Sejnoha

### SPONSORED KEYNOTE LUNCH ♦ Sponsored by VoiceObjects

**C103 Success With Machine Translation**  
Hannah Grap, Imed Zitouni

**C104 Advanced Dialogue's Growing Sophistication**  
Phillip Hunter, David Thomson

**C105 Natural Language Processing Techniques**  
Peter Trompeter, Daniel O'Sullivan

**C106 IVR Virtualization**  
Rob Kassel, Nava Shaked

**TRACK D** ♦ Shubert Complex (6th Floor)

### DEVELOPMENT AND DEPLOYMENT

**D101 Design Methodologies and Tools**  
Matthew Yuschik, Leah Eyler

**D102 Speaking and Listening to Mobile Devices**  
Matthew Yuschik

### ♦ Phone 2.0: The Mobile Generation at Work ♦ Beatriz V. Infante

**D103 New Standard Languages for Developing Speech Applications**  
Paolo Baggia, Jim Barnett

**D104 Advanced Techniques for Using Grammars**  
Dominique Boucher, David Claiborn

**D105 Integrating Speech Technologies With Enterprise Applications**  
Michael Codini, John Oh

**D106 The Impact of W3C Standard Languages**  
R.J. Auburn, Ken Rehor

**EXHIBIT HALL GRAND OPENING & WELCOME RECEPTION** ♦ In the Exhibit Hall ♦ Sponsored by  angel.com

## TUESDAY, AUGUST 19

**BREAK** ♦ Visit the Exhibits

**TRACK C TRACK C** ♦ Majestic Complex (6th Floor)

### ADVANCED SPEECH TECHNOLOGIES SYMPOSIUM

**C201 Natural Language Processing: Automaticity**  
Mark Pfeiffer, Emmett Coin

**C202 Enhanced VUI: Context-Sensitive Dialogue**  
Sunil Issar, Susan Boyce

### SPONSORED KEYNOTE LUNCH ♦ Sponsored by Tellme. ♦ A Case Study on Personalized Self-Service ♦ Tracy Griffith

**C203 Enhanced VUI: Dynamic Response Generation**  
Ahmed Bouzid, Phil Shinn

**C204 Advances in Automotive Speech**  
Roberto Sicconi, Tom Schalk

**TRACK D** ♦ Shubert Complex (6th Floor)

### DEVELOPMENT AND DEPLOYMENT

**D201 Securing CCXML and VoiceXML Applications**  
Dan York

**D202 Personalization and Context**  
Patrick Nguyen, Steve Pollock

**D203 CCS: Speech in Healthcare**  
Val Nenov, David Engelhardt

**D204 CCS: Speech in Government/Utilities**  
Marge Vizcarra & James Whitten, Michael Roberts

**BREAK** ♦ Visit the Exhibits

**C205 Ancillary Transcription Techniques**  
Michael Picheny, Jordan Cohen

**D205 CCS: Speech in Telecom**  
Manohar Kesireddy, Fred MacKenzie, Charles Giordano

**RECEPTION** ♦ On the 9th Floor

## WEDNESDAY, AUGUST 20

**BREAK** ♦ Visit the Exhibits

**TRACK C** ♦ Majestic Complex (6th Floor)

### TODAY'S SPEECH TECHNOLOGIES

**C301 Video and Speech**  
Andrew Fuller, Valentine Matula

**C302 CCS: Speech in Automotive**  
Ben Miners, Christian McCarrick

**TRACK D** ♦ Shubert Complex (6th Floor)

### DEVELOPMENT AND DEPLOYMENT

**D301 CCS: Speech in Financial Services/Insurance**  
Brent Sparks & Remus Siclovan

**D302 Testing**  
Jim Jenkins; Judi Halperin & Dennis Jakobsen

**LUNCH BREAK** ♦ Visit the Exhibits

**C303 Multimodal Standards and Applications**  
Deborah Dahl & Ingmar Kliche; Raj Tumuluri

**C304 Developing and Testing Multimodal Applications**  
David Pelland, Cliff McEnery

**D303 CCS: Speech in Customer Service**  
Richard Grant, Chris Weeks

**D304 Tuning Tips**  
Yves Normandin, Stephen Keller

### TUESDAY, AUGUST 19

**DISCUSSION 3 Speaker Identification and Verification** ♦ Markowitz

**DISCUSSION 4 It Ain't Shakespeare...Or Is It?** ♦ Auckland & Polkosky

**DISCUSSION 5 W3C Multimodal Working Group** ♦ Dahl

### WEDNESDAY, AUGUST 20

**DISCUSSION 6 Speech Development Teams** ♦ Shaked

**DISCUSSION 7 Project & Perfect** ♦ Tranter & Turney

**DISCUSSION 8 Analytics** ♦ Brinsmead

## At-A-Glance

### SUNDAY, AUGUST 17

1:30 p.m. – 4:30 p.m.

#### STKU-1

##### Introduction to Voice User Interface Design

*Eduardo Olvera*

#### STKU-2

##### Introduction to Speech Technologies

*James A. Larson*

### THURSDAY, AUGUST 21

9:00 a.m. – 12:00 p.m.

#### STKU-3

##### Introduction to Grammar Writing

*Jenni McKenzie & Judi Halperin*

#### STKU-4

##### Guerilla Tactics in VUI Design

*Melanie Polkosky*

#### STKU-5

##### Natural Language

*Deborah Dahl*

#### STKU-6

##### Tuning Speech Applications for Maximum Performance

*Joe Alwan*

1:30 p.m. – 4:30 p.m.

#### STKU-7

##### VUI, GUI, and MUI: Design Challenges in Multimodal Interaction

*Catherine Zhu & Julie Underdahl*

#### STKU-8

##### User-Centered Evaluation Techniques for Speech Applications

*Susan Hura*

#### STKU-9

##### Stop Rude Calls: A CCXML Tutorial for VoiceXML Veterans

*Moshe Yudkowsky*

#### STKU-10

##### Speaker Identification and Verification

*Judith Markowitz*

**SpeechTEK University** courses provide in-depth, 3-hour seminars on compelling topics for speech technology and information technology professionals. Experienced speech technology practitioners teach each class in an intimate classroom setting to foster an educational and structured learning experience. If you are considering deploying a speech application, looking to increase your knowledgebase in one of the key areas below, or you simply need a speech technology refresher, attend a SpeechTEK University course. These courses are separately priced or may be purchased as part of your conference registration.

## SUNDAY, AUGUST 17

### Introduction to Voice User Interface Design

**STKU-1**

1:30 p.m. – 4:30 p.m.

*Eduardo Olvera, Senior User Interface Designer, Nuance Communications, Inc.*

Jump-start your knowledge in the field of voice user interface design! This session is designed to quickly get those new to VUI design up-to-speed so they can make the most of the Principles of VUI Design track at the conference. This tutorial will illustrate why VUI design is the make-or-break factor for speech applications and how to make smart design decisions from Day 1. Learn how to encourage customers to accept and use speech automation by focusing on the perceptions and reactions of end users throughout the design process. This tutorial will cover the basics in VUI design: writing effective prompts; creating efficient, no-nonsense call flows; and using evaluation techniques to learn what real customers think.

### Introduction to Speech Technologies

**STKU-2**

1:30 p.m. – 4:30 p.m.

*James A. Larson, Vice President, Larson Technical Services*

Designed for attendees new to the speech technology area, this tutorial provides an overview of today's key speech technologies. What are the major differences between dictation and conversational recognition engines? Should you use statistical language models (SLMs) or speech grammars, and do they need semantic tags? Should you use concatenative or parameter-based speech synthesis engines? Do speaker identification and verification really work? Is there a need for touchtone recognition in interactive voice response systems? Who drives the speech dialogue? The user, the computer, or both? Where can natural language processing technologies such as natural language recognition, machine translation, response generation, and summarization be used today? Can speech technologies be embedded in mobile devices, or do they require a backend server? Should you use POTS, VoIP, or some other communication strategy? Untangle the voice standards alphabet: VoiceXML, SSML, SRGS, CCXML, PLS, and SCXML.



## THURSDAY, AUGUST 21

**Introduction to Grammar Writing**

STKU-3

9:00 a.m. – 12:00 p.m.

*Jenni McKenzie, VUI Designer, Travelocity*  
*Judi Halperin, Speech Engineer, Avaya*

This course will arm you with guiding principles and best practices for writing GRXML grammars. We will begin with a quick overview of grxml structure so we can analyze sample grammars. Plus, we'll examine some cases when applying best practices really isn't best (there's always a loophole!). We will consider grammars throughout the design, development, testing, and tuning of speech applications. Once you have basic grammars down, how can you add cool, advanced stuff to further constrain your grammar and optimize recognition? This course is for VUI designers, developers, managers, analysts, QA specialists, and others who want to better understand how to use grammars to boost performance of their speech applications.

**Guerilla Tactics in VUI Design**

STKU-4

9:00 a.m. – 12:00 p.m.

*Melanie Polkosky, Human Factors Psychologist/Senior Consultant, IBM*

VUI designers often have to justify their design decisions to clients, peers, management, and others. But what makes a compelling argument for a user experience design? How do you explain user behavior and preferences? How do you know what to prioritize? This course will show you how to make the best use of available research or do some research of your own quickly and under the radar! This session for advanced VUI designers will focus on fast but effective techniques for gathering data in social psychology, interpersonal communication, and service delivery as a basis for making design decisions, responding to feedback, and communicating with clients.

**Natural Language**

STKU-5

9:00 a.m. – 12:00 p.m.

*Deborah Dahl, Principal, Conversational Technologies*

Natural language processing is being used in more applications to support increasingly sophisticated speech dialogues. This tutorial will introduce natural language processing and its role in speech applications. Attendees will learn what natural language is; techniques for processing natural language; how to use statistical language models (SLMs) and speech grammars with semantic tags for processing natural language; and about emerging standards and research and their roles in future applications. Attendees will have the opportunity to develop tagged grammars illustrating the techniques discussed in the tutorial.

**Tuning Speech Applications for Maximum Performance**

STKU-6

9:00 a.m. – 12:00 p.m.

*Joe Alwan, VP/GM AVOKE Caller Experience Analytics, BBN Technologies*

Methods for tuning speech applications have grown and evolved within the industry. Just as holistic views of the application replaced narrow efforts focused only on the recognition engine, the newest approaches step back even further from the engine and examine caller success from dialing to hangup. This course will teach you how to manage a successful tuning project to get maximum value from your speech applications. Topics include setting tuning objectives, understanding caller behavior and intent, measuring disatisfiers and inefficiencies, and identifying the highest impact tuning opportunities. Using actual case studies and class exercises, the course will cover a framework and methodology that you can use to manage both in-house and vendor-partner tuning projects.

**BREAK**

12:00 p.m. – 1:30 p.m.

**VUI, GUI, and MUI: Design Challenges in Multimodal Interaction**

STKU-7

1:30 p.m. – 4:30 p.m.

*Catherine Zhu, Senior Voice User Interface Design Engineer, Intervoice*  
*Julie Underdahl, Senior Voice User Interface Design Engineer, Intervoice*

This course focuses on the aspects of design that need to be considered when creating a multimodal application, such as user modality preference, conflicting mental models, variable usage environments, and technology limitations. This session will cover the successes and failures discovered during the design process for a multimodal application that allowed mobile phone users to order accessories over the phone. The session will also explore the challenges even an experienced GUI or VUI designer faces when attempting to design an effective, user-friendly multimodal application.

**User-Centered Evaluation Techniques for Speech Applications**

STKU-8

1:30 p.m. – 4:30 p.m.

*Susan Hura, Principal, SpeechUsability*

VUI designers and their clients recognize the importance of collecting user input and including it in the process of designing voice user interfaces to speech applications. For many organizations, usability testing has become a required part of the design process, but usability tests are not always practical or even warranted. How do you evaluate a speech application from a user-centered perspective when usability testing isn't feasible? This course presents a range of methods and techniques for evaluating speech applications beyond standard usability testing. Learn how to quickly measure the important aspects of user behavior and perception to make fast and effective improvements to your voice user interface. Discover which evaluation techniques will provide the best data for your situation and how to build continuous opportunities for evaluation into your design and development process. This course is intended for VUI designers, developers, and managers who want to learn how to make data-based decisions about their speech applications.

**Stop Rude Calls: A CCXML Tutorial for VoiceXML Veterans**

STKU-9

1:30 p.m. – 4:30 p.m.

*Moshe Yudkowsky, President, Disaggregate*

Just in time for the elections, here is an application that blocks automated telephone calls. This workshop is for people who understand VoiceXML and want to learn about its companion language, CCXML, also known as voice browser call control. CCXML provides greatly enhanced telephony capabilities and integrates with VoiceXML to provide more powerful applications. In this workshop, we'll discuss the basic concepts of CCXML and then build a "stop rude calls" application that intercepts incoming phone calls to determine if they're from a live person. Bring your laptop and take home the "stop rude calls" application for possible extension into a call routing or answering machine.

**Speaker Identification and Verification**

STKU-10

1:30 p.m. – 4:30 p.m.

*Judith Markowitz, President, J. Markowitz, Consultants*

Join us for an informative session covering the A-Z of speaker biometrics. We'll look at technology, applications, and markets. Along the way we'll experience what it is like to use the technology and answer questions such as these: How do speaker biometrics work? Can a tape recorder fool a speaker-verification system? Can a professional mimic fool these systems? How do speaker biometrics compare with other biometrics? Who is using it and why? How should I explain the system to my customers/employees? This session presents no-nonsense concepts and real-life examples of what works!

## Keynote

## Speech in the Mainstream and Beyond

9:00 a.m. – 10:00 a.m. ♦ Broadway Ballroom, 6th floor

**Ray Kurzweil**, author of *The Age of Spiritual Machines: When Computers Exceed Human Intelligence* and *The Age of Intelligent Machines*

We're living in a world of rapid technological innovation and increasing pervasiveness of information technology. Consumers not only appreciate these advances in their professional and personal lives, they are demanding it. What does this mean for those who are driving development and acceptance of speech technology? Glean insight from one of the most distinguished speech technology innovators of our time, Ray Kurzweil, who will share his views on how speech technology will work in conjunction with other emerging technologies to bring us to an age of intelligent machines.


**TRACK A ♦ Soho Complex (7th Floor)**  
**MEETING BUSINESS GOALS**  
**WITH SPEECH TECHNOLOGY**
Mainstream Speech 2008:  
The State of the Industry

A101

10:15 a.m. – 11:00 a.m.

MODERATOR: **Tim Moynihan**, Vice President, Global Marketing & Sales Support, Envoy

Speech is a mainstream technology, used by millions across the world every day to get information, perform transactions, and manage their daily lives. What do end users really think of speech technology? What are the hot buttons in the speech vendor community? What do organizations using speech have to say about the technology? Panelists in this session have completed ambitious client, vendor, and end-user surveys of the speech industry. The resulting data can tell us a great deal about the current state of the speech industry and where we need to be tomorrow to continue to grow and thrive. Come with questions and be prepared for a spirited debate of the findings on the state of speech in 2008.

Year 2 Speech in the Mainstream:  
Stakeholder Views From 360 Degrees**Tim Pearce**, Global Solutions Manager, Self Service, Dimension Data  
**Mike Bergelson**, Director, Product Management, Cisco

Are vendors and end users on the same page about speech recognition applications? This discussion picks up from where SpeechTEK 2007 left off, showcasing the results of the global Alignment Index, which tracks the views of 1,200 speech-app consumers and 128 speech vendors to see how closely they're aligned.

VoiceXML and IVR Adoption for Self Service Portals:  
The European Mobile Operators Perspective**Monique Bozeman**, Independent Marketing Consultant, Monique Bozeman Consulting  
**Bonnie Crater**, Senior VP Marketing, VoiceObjects

According to research by Datamonitor, VoiceXML revenues and port shipments in both North America and EMEA surpassed those of traditional IVR for the first time in 2007. VoiceObjects recently sponsored research to "take the temperature" of the European Union's highly competitive market of mobile network operators. This presentation will highlight those survey findings, including operators' customer service challenges, their plans for improving customer satisfaction, and how they will differentiate themselves through self-service offerings as they move from the customer acquisition to customer retention phase in a rapidly consolidating market.

## Planning for Speech

A102

11:15 a.m. – 12:00 p.m.

MODERATOR: **Nava Shaked**, CRM and CC Practice Leader, IBM

Your organization is making the leap into speech technology—congratulations! But what happens next? This session will arm you with information about steps you can take to prepare for a speech project's development. Learn what data will ease the transition to speech and what team resources will be needed to keep a speech project on track. Learn how defining success criteria up front can provide a framework for decisions throughout the project and drive a positive experience from the start. Speakers in this session will help you ensure that you're ready for speech when your project begins.

## Speech Is Coming: What Do I Do Now?

**Catherine Zhu**, Senior Voice User Interface Design Engineer, Intervoce

The decision to move to speech has been made, and now it's just a matter of logistics before the project can officially start. How can you profitably use this time? Learning speech technology basics, beginning interdepartmental communication, and gathering data about your business and potential callers are just a few factors to consider for managing a smooth transition. This session will explore proactive steps to take as a company when you know speech is coming.

## Preparation Leads to Success

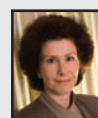
**Caroline Nelson**, Speech Solutions Team Technical Lead, Nortel

What do customers need to know in preparation for a speech application deployment? An awareness of the caller base and a comprehensive understanding of your back-end data are just the beginning. Other elements, such as involving the right players and setting success criteria at the start of the project, also play a huge role. A detailed discussion of these items and more add up to the top 10 tips for deploying speech.

## SPONSORED KEYNOTE LUNCH ♦ Sponsored by VoiceObjects

## Phone 2.0: The Mobile Generation at Work

12:00 p.m. – 1:15 p.m. ♦ Broadway Ballroom, 6th floor

**Beatriz V. Infante**, President and CEO, VoiceObjects, Inc.

Phone self-service has evolved with today's new generation of mobile users who expect a much higher level of phone self-service than the common one-size fits all menu structures. The presentation shows how Phone 2.0 is now becoming the new standard for phone self-service with companies today and how consumers are now enjoying personalized self-service experiences over the phone, just like they have over the Web for many years. In addition, new phone channels are being adopted by many companies for text, multimedia and mobile Web interactions.

Preventive Medicine:  
Keeping Your Speech System Healthy

A103

1:15 p.m. – 2:00 p.m.

MODERATOR: **Sunil Issar**, Director, Convergys

Your speech application is up and running—now you can relax, right? Wrong! Speech applications are dynamic entities that require lots of ongoing TLC to perform at peak effectiveness. Experts in this session will teach you how to monitor and manage your speech application throughout its lifecycle and how to maintain excellent performance without breaking the budget. If you currently have a speech application, this session will tell you what you need to know to keep it on track for the long haul.

## Now What? Managing and Maintaining Speech Deployments

**Fran McTernan**, Speech Operations Lead, Nortel

Businesses commonly turn to technology providers and vendors to get their initial speech deployments up and running. But once the system is earning its keep, how should you maintain it? What skills does a team need to keep up with changing and growing business needs? This session is geared toward IT managers responsible for managing and maintaining speech systems, focusing on the high-level skills and knowledge required to do so.

## Strategies to Cost-Effectively Maintain Self-Service Phone Portals

**Ingo Bors**, Industry Consultant, Ibstor Consulting Services

Self-service phone applications often go unmodified due to increasingly complex IT and business process requirements. The result is a limited ability to adapt voice self-service dialogues in real time based on a caller's behavior and a restricted flexibility to accommodate change requirements. This presentation will discuss business conditions driving modifications to self-service phone portals, presenting examples of how to use a modular approach and services-oriented architecture (SOA) for maintaining them.

## Agile Speech Projects

2:15 p.m. – 3:00 p.m.

MODERATOR: **Phillip Hunter**, Vice President, Interaction Design, SpeechCycle

Agile software development is gaining wider acceptance for the benefits it offers over traditional waterfall development methods. Agile development allows an organization to have code up and running more quickly and to be more responsive to changes by developing software in discrete chunks that can be easily modified. How do agile development processes impact speech projects? Is it possible to design a VUI that fits within the constraints of agile development? Speakers in this session explore the benefits and challenges of agile development for speech projects.

## Adopting Software Engineering Practices for VUI Development

**Charles Lewis**, Senior Technical Trainer, Bloomberg, LP

As call flows become more complex, the discipline of software engineering can offer guidance for the creation and maintenance of robust, scalable products. This session will describe the successful application of standard software development practices, including source-code control, coding standards, code walk-throughs, and the application of object-oriented programming principles to the development and ongoing improvement of highly complex call flows. The application of these processes and practices to VUI development presents unique challenges that will be discussed.

## Flexible Design in Support of More Rapid Deployment

**Leslie Carroll Walker**, Staff Engineer, VUI Design, Intervoice

As customers move away from waterfall methods of deployment, designers may need to have several different design initiatives under way simultaneously. This presentation will look at some practical approaches to the design process in support of more rapid deployment models. Documentation options, project management options, and other workarounds will be offered and discussed. This presentation will be particularly useful for consulting designers who are working on large, ongoing initiatives, but should also prove helpful for smaller initiatives and in-house designers.

## Speech in Financial Services

3:15 p.m. – 4:00 p.m.

MODERATOR: **Ken Rehor**, Founder, VoiceXML Forum

Banks and financial institutions are adopting speech technology. This session presents two different uses of speech technology. Bank of America describes how it uses analytics to identify customer behavior and experience to improve customer treatment and ultimately increase financial benefit. And Volans Technology describes how it uses speech synthesis technology to assist low-vision customers in using ATMs in any of several languages.

A104

## Understanding the Impact of Customer Experience on Your Business

**Glen Graham**, SVP, Business Operations, Bank of America

This presentation will explain how Bank of America examines customer experiences across multiple channels (IVR, agent, web, etc.) to identify the exact events resulting in customer confusion and frustration. Learn how Bank of America uses this information to prioritize enhancements that maximize user adoption and customer retention.

## A Voice Solution for ATM Using TTS

**Ricardo de Carvalho Destro**, Technology Director, Volans Technology

A TTS based solution for ATM equipments will be presented in this session. This solution aims to allow blind customers (or with low vision), to use ATM machines for banking transactions as withdraws, balance etc. This multi-platform solution was designed to support many languages and to be customized with low impact of development in the Bank's transactional applications.

## The Business of Speech Analytics

4:15 p.m. – 5:00 p.m.

MODERATOR: **Dan Miller**, Senior Analyst, Opus Research

## Roundtable: Building Better Applications and Driving Business Value With Analytics

PANELISTS:

**Michael Codini**, CTO and Co-Founder, VoiceObjects

**Greg Borton**, VP of Analytics, Nuance Communications

**Cliff LaCoursiere**, Senior Vice President of Business Development, CallMiner

As self-service phone applications mature and become broadly deployed to reduce costs and increase customer self-service, there is a critical need for companies to understand how their customers are using these systems. Despite the tremendous interest in business intelligence and analytics among mainstream IT, the call center and speech industries remain woefully behind. This panel will investigate the role of analytics in three key areas of call center technology: self-service, speech, and customer care. Attendees will learn how new business intelligence and analytics technologies are helping customers build better applications, improve customer service, and drive business value.

A106

## WELCOME RECEPTION ♦ Sponsored by [angel.com](http://angel.com)

5:00 p.m. – 7:00 p.m. in the Exhibit Hall

TRACK B ♦ Empire Complex (7th Floor)

## VUI DESIGN PRINCIPLES AND TECHNIQUES

## What End Users Really Want

10:15 a.m. – 11:00 a.m.

MODERATOR: **Juan Gilbert**, T-SYS Distinguished Associate Professor, Auburn University

In speech projects, requirements are sometimes thought of as a laundry list of items to be handed from the client to the vendor building the speech application. Because clients don't know VUI, requirements are sometimes less than sensible. Moreover, requirements rarely include the perspective of the application's end user. Therefore, building an application on such requirements often produces applications that are poorly adopted by users and thus fail to meet client goals. Experts in this session will explore why requirements assembled in a vacuum are insufficient and discuss methods for discovering truly meaningful requirements.

B101

## The Big Gap: What Customers Want Versus What Customers Get

**Moshe Yudkowsky**, President, Disaggregate

When someone calls your office and you're not there, he might want to know when you'll be back, whether you received a file he sent you, and what you thought about his proposal. What this person gets, however, is something entirely different: voicemail. In this session, we'll discuss the huge gap between what customers want and what customers get, and offer ideas on how to create services that actually deliver what they want.

## Breakfast & Coffee Breaks

A continental breakfast will be provided for conference attendees each morning from 8:00 a.m. to 9:00 a.m. before the keynote session. Additional coffee breaks will take place each morning and afternoon. Please check the schedule for exact times and locations.



## Unearthing the Real Requirements

**Jenni McKienzie**, Senior Business Solutions Advisor, Travelocity

VUI designers often receive puzzling requests from clients. Valid reasons typically drive their requests, but the businesses haven't come up with the right solutions. We'll dissect several real requests for IVR modifications to uncover their underlying problems, and then we'll examine better alternatives than the ones proposed. Finally, we will look at how to go back to these clients and sell them on your plans.

## Managing Client/Vendor Relationships

**B102**

**11:15 a.m. – 12:00 p.m.**

**MODERATOR:** **Darla Tucker**, Principal, Global Consulting Services, Intervoice

VUI designers are the keepers of a great deal of highly specialized knowledge about speech technology and the way users interact with it. While VUI designers are hired specifically for this specialized knowledge, clients regularly challenge VUI specialist design decisions and insist on prompts and call flows that make VUI designers cringe. This session is about finding the balance between providing expert guidance to clients and accepting requests that will compromise the design. Learn how to decode client requests to understand the real intent, include clients in the design process, and gently steer them toward solutions that will meet their ultimate goals.

## Caution Ahead: Voice User Interface Is a Two-Way Street

**David Martin**, Principal Consultant, Speech Engineering, Avaya

The goal of this presentation is to facilitate critical thinking about deploying user-centric business solutions. The discussion will cite recent applications in which business processes had the potential to detract from the user experience, focusing on how a well-designed user interface accounts for both business and customer goals and how the attitudes of business stakeholders and VUI designers can affect the success of a speech application.

You also will be encouraged to challenge yourself and your vendors to make courageous design decisions that will empower customers with excellent self-service.

## It's OK to Tell Clients They're Wrong

**Jessica Stevens**, Senior Engineer, VUI Design, Intervoice

**Jenny Burr**, Manager, Speech Technology, Global Consulting Services, Intervoice

Dealing with customers is a large part of our jobs in VUI design and tuning. We have all run into differences with our customers, and both our success stories and cautionary tales can be informative. This session will provide real-world examples of trying to find that sweet spot between business and caller needs, demonstrating the importance of making the effort to represent our expertise in the industry and reminding clients why they hired us in the first place.

## SPONSORED KEYNOTE LUNCH ♦ Sponsored by VoiceObjects

### Phone 2.0: The Mobile Generation at Work

**12:00 p.m. – 1:15 p.m.** ♦ Broadway Ballroom, 6th floor

**Beatriz V. Infante**, President and CEO, VoiceObjects, Inc.

## Reverse Navigation Hands-On Session

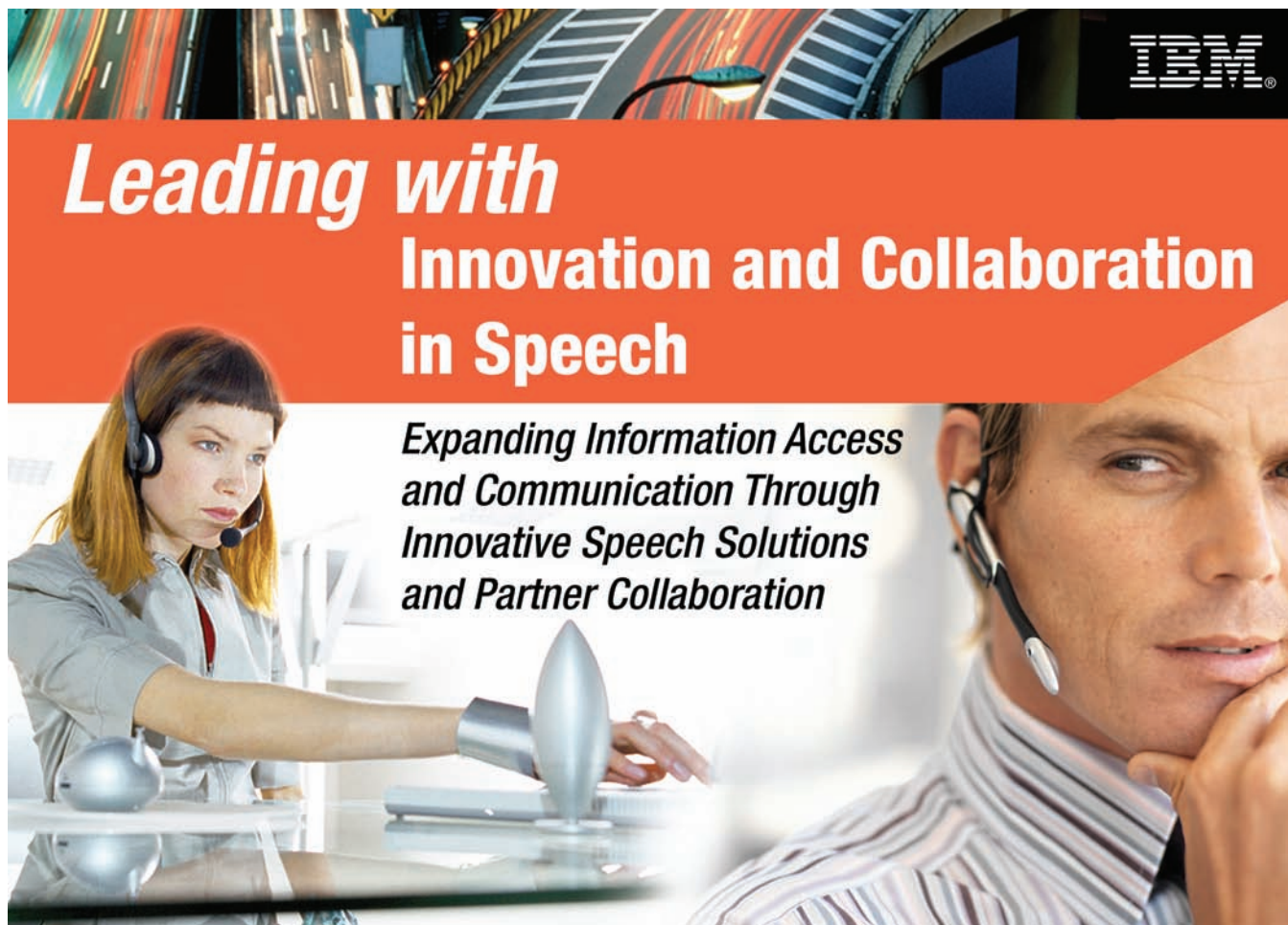
**B103**

**1:15 p.m. – 2:00 p.m.**

**MODERATOR:** **Jenni McKienzie**, Senior Business Solutions Advisor, Travelocity

**Peter Krogh**, Speech Mechanic, SpeechCycle

How do you navigate back to a previous state in a VUI? Unlike webpages, VUIs have no "back" button that transparently takes users back a single step in the interaction. Does a simple speech analog to the back button make sense in a VUI? How, and when, should this functionality be offered



**IBM**

# Leading with Innovation and Collaboration in Speech

*Expanding Information Access and Communication Through Innovative Speech Solutions and Partner Collaboration*

to users? Should reverse navigation be universal or are specific instantiations required for different applications? Explore the nuances of reverse navigation in this hands-on session. After a brief introduction, be prepared to work together in small groups to explore this issue and to present solutions to the audience.

### Universal Commands

B104

2:15 p.m. – 3:00 p.m.

MODERATOR: **Charles Galles**, *Speech Scientist, Multimedia Applications, Nortel Networks*

Is there a set of commands that all speech applications should share? If we offer users help throughout a speech application, does it do any good? This session explores the highly debated issues of whether we need universal commands across applications, determining what these commands should be, and whether universal commands truly benefit users of speech applications. Join us as two VUI practitioners share evidence for how to handle universals in VUI design.

### Should Universal Commands Be Universal?

**Rita Dhruve**, *Speech Solutions Specialist, Nuance*

A small set of commands is becoming a de facto standard for universal commands in VUI design. However, guidelines for how and when to offer universal commands, and what response should be expected of the system, don't exist. This session will present examples from current speech applications to demonstrate how to successfully implement a set of universal VUI commands.

### Does Universal Help Help?

**James Mesbur**, *Voice Interaction Designer/Speech Scientist Engineer, SpeechCycle*

**Karen Moylé**, *Voice Interaction Designer, SpeechCycle*

Universal commands are intended to give a caller control over a speech interaction and provide a consistent approach to tasks. But universal help, as it is typically implemented, has never delivered on this promise. As a result, we have implemented a set of context-sensitive help options, offered only when extra help makes sense. We'll discuss how this approach allows for simpler grammars, lets callers educate themselves when they feel it's necessary, and results in a marked increase in dialogue object success, call completion, and caller satisfaction.

### Lessons in Multimodal Usability

B105

3:15 p.m. – 4:00 p.m.

MODERATOR: **Catherine Zhu**, *Senior Voice User Interface Design Engineer, Intertec*

Applications using speech and visual modalities have arrived and present special challenges to user interface designers. Speech and visual modalities ideally work in concert in multimodal applications, allowing the user flexibility in information input and output. When multimodal goes wrong, however, speech and visual modalities can interfere with each other, competing for the user's attention and making multimodal less effective than unimodal applications. Speakers in this session share their experiences in multimodal design and give recommendations for helping multimodal applications live up to expectations.

### Multimodal Speech Usability Lessons

**Eduardo Olvera**, *Senior User Interface Designer, Nuance Communications*

Multimodal user interfaces can combine visual-, touch-, gesture-, and location-based features. But what happens when you add speech recognition capabilities to designs that are so new they lack a clear set of usability guidelines? Based on actual multimodal speech usability testing, this session will discuss the challenges of multimodal design and provide recommendations for successful implementations.

### You Can't Get There From Here, But Why Not?

**Matt Prather**, *Staff Engineer, VUI Design, Intertec*

In an increasingly multimodal world, users expect a voice interface to do the same things, in the same ways, with the same results, as the desktop and web-based interfaces they're already using. But, all too often, functionality can be radically different across a company's various interfaces, which

leaves users perplexed, annoyed, and wondering why they can't get there from here. Learn why interface symmetry is desirable, as well as how to plan for it, champion the cause, and educate both callers and clients as to its possibilities and limitations.

### How May I Help You?

B106

4:15 p.m. – 5:00 p.m.

MODERATOR: **Elizabeth Strand**, *Director of User Experience Design, Tellme*

Statistical language models allow us to pose open-ended questions and allow users to give more free-form responses. This sounds simple, but for "How may I help you?" questions, the devil is in the details. The exact formulation of the question can have a huge impact on users' responses, and conversely, knowing how users respond can help craft more effective open-ended questions. In this session, we explore the details of writing open-ended prompts and analyzing user responses to these questions.

### People Say the Darnedest Things

**Charles Galles**, *Speech Scientist, Multimedia Applications, Nortel Networks*

Open prompts (such as "How may I help you?") produce interesting responses. This discussion analyzes responses based on caller profiles and VUI design issues across several applications. The data presented will help you understand how to deliver an excellent caller experience, drive customer loyalty, and strengthen your brand.

### Natural Language Questions for Technical Support Applications: A Winning Strategy

**Mary Constance Parks**, *Senior VUI Designer, Nuance Communications*

For a recent technical support application, the goal was to improve the accuracy of an existing natural language question and back-off menu. Three different designs were created to challenge the existing flow, one of which significantly improved both accuracy and automation. The characteristics of the winning design will be presented, along with takeaways for designing technical support applications and natural language questions.

### WELCOME RECEPTION ♦ Sponsored by [angel.com](http://angel.com)

5:00 p.m. – 7:00 p.m. in the Exhibit Hall

TRACK C ♦ Majestic Complex (6th Floor)

### ADVANCED SPEECH TECHNOLOGIES SYMPOSIUM

### Advanced ASR: A Global Perspective

CI01

10:15 a.m. – 11:00 a.m.

MODERATOR: **Tom Schalk**, *Vice President, Voice Technology, ATX*  
**Roberto Pieraccini**, *Chief Technology Officer, SpeechCycle*

This session provides a global overview on the state of research in the many areas related to speech and language, such as speech recognition, language understanding, spoken dialogue systems, speech summarization, speech-to-speech translation, audio indexing, speech synthesis, speaker verification, and supporting technologies. Learn about the wider speech technology research community, the conferences, the organizations, and the publications. Finally, learn about breakthroughs in advanced technologies where academic research is currently making progress and their potential impact in the commercial world.

### Application of Advanced ASR

CI02

11:15 a.m. – 12:00 p.m.

MODERATOR: **Tom Schalk**, *Vice President, Voice Technology, ATX*

This session focuses on speech recognition technology used to complete challenging tasks such as automated directory assistance, address entry, understanding newscasts, and the handling of conversational speech in mobile devices. In addition to exploring key advances in core speech recognition technology, performance results from real-world deployments will be



presented and analyzed to show trends in automation rates, usage patterns, and where the technological gaps arise.

### Using Phonetic Audio Search Technology to Streamline Video Search and Editing

**Marsal Gavalda**, *Director of Incubation, Nexidia*

The current explosive growth of online video necessitates improved ways to manage and navigate such audiovisual content. This presentation will discuss the role that semantic computing can play in the editing, publishing, syndication, and discoverability of online videos. The session will present a concrete, successfully deployed application that applies speech, language, and semantic technologies to automatically convert a newscast from its full-length broadcast (long form) to segments containing single stories (web clips) and prepares such clips for online publishing and semantically aware syndication. Technologies discussed include audio/speech, voice and music detection, phonetic indexing and search, language/semantic technologies, document classification, and search query analysis and validation.

### Performance of Advanced Speech Technology

**Vlad Sejnova**, *Vice President, Chief Scientist, Nuance Communications*

Steady advances in core recognition technology over the past decade have resulted in an impressive expansion of speech application capabilities. The next few years promise to be even more dramatic, with speech interfaces poised to jump to new levels of power and usability. This presentation will explore factors shaping the next generation of speech technology, including the unprecedented quantity of user data being generated by current deployments; the difference between core and user-perceived accuracy; the drive toward lowering application development and maintenance cost; novel and challenging use cases such as web search and voicemail-to-text; and new demands on ASR flexibility stemming from deployments distributed mobile environments.

### SPONSORED KEYNOTE LUNCH ♦ Sponsored by VoiceObjects

#### Phone 2.0: The Mobile Generation at Work

**12:00 p.m. – 1:15 p.m.** ♦ Broadway Ballroom, 6th floor

**Beatriz V. Infante**, *President and CEO, VoiceObjects, Inc.*

#### Success With Machine Translation

**C103**

**1:15 p.m. – 2:00 p.m.**

**MODERATOR: Bill Scholz**, *President, NewSpeech LLC*

As the importance of timely access to information grows, the necessity for overcoming language barriers becomes ever more prominent. Increased use of statistically based computational methods and techniques evolved from coupling speech recognition and understanding to create solutions

able to perform speech-to-speech translation in near real time. This session explores key research in this area and provides cogent examples of real successes in machine translation.

### Speech Technology and Automated Translation: A Winning Combination

**Hannah Grap**, *Marketing Communications Manager, Language Weaver*

Speech technology and translation technology have advanced to new levels in recent years, and it is now possible to deliver real-time human communication across multiple languages. This presentation will look at existing speech and automated translation solutions for video broadcast monitoring and speech-to-speech translation, along with requirements for success to ensure usable translations of spoken information. New opportunities for pairing these technologies in customer support and intelligence applications will also be discussed.

### Translingual Automatic Language Exploration

**Imed Zitouni**, *Sr. Research Scientist, IBM Research*

People are interested in easily searching and monitoring a wide range of foreign media in real time without language barriers. IBM made a big step toward this goal with the development of the Trans-lingual Automatic Language Exploration System, codenamed TALES. TALES performs video capture, automatic speech-to-text conversion, machine translation of foreign text to English, and information extraction. This presentation shows some of the technical challenges in building the TALES platform with an emphasis on cross-lingual information propagation and name spelling normalization to improve machine translation and information extraction components.

### Advanced Dialogue's Growing Sophistication

**C104**

**2:15 p.m. – 3:00 p.m.**

**MODERATOR: Bill Scholz**, *President, NewSpeech LLC*

Speech applications continue to grow in complexity and sophistication, requiring both the deepening and broadening of context to meet the requirements for troubleshooting, call routing, and detailed information retrieval. To meet these needs, the dialogue design process has grown significantly in sophistication, requiring the integration of powerful data, grammar, and code infrastructures that support robust and flexible interaction—even utilizing inference and reasoning capability borrowed from the AI community. This session explores instances of this growing sophistication in dialogue design and looks at the evolution toward an integrated model for advanced dialogue services supported by a major standards organization.

### More Than Call Steering: Managing Dynamic Contextual Complexity

**Phillip Hunter**, *Vice President, Interaction Design, SpeechCycle*

The last few years have seen growth in the need for highly complex speech applications characterized by either very deep (insurance or troubleshooting) or very broad (call routing and stocks) contexts. But when customer and caller demands mean enabling broadly more complexity with increased simplicity of access, interface and application design and construction must adapt accordingly. Highlighted in a customer deployment involving call steering and multiple other applications, SpeechCycle discusses advances in powerful data, grammar, and code infrastructures that support robust and flexible interactions allowing callers to request hundreds of unique tasks, some of which involve dozens of turns and variously arranged contexts.

### Architectures for Advanced Dialogues

**David Thomson**, *CTO, SpeechPhone*

The VoiceXML Forum Tools Committee is exploring ways to introduce standards to development of advanced speech services. (We define "advanced" as a system endowed with a higher level of reasoning than typically exists in menu-based or finite state machines.) This has been an area of active research and new methods have been deployed in impressive trials and services. Through a series of conference calls and workshops, we have been reviewing architecture options and are exploring what new or existing standards can be used. By standardizing system components, we hope to help reduce the development cost for building advanced speech services. The presentation will review methods for supporting advanced dialogues and will outline proposed architectures and standards under consideration.

## Customer Case Studies

### By Customers For Customers

Customer case study presentations marked with a Customer Case Study icon (CCS) give you unparalleled information on how speech technologies are really being applied. Presenters share how they successfully procure, implement, and deploy existing speech applications, and how they avoid common pitfalls. Customer case studies will be presented on automatic speech recognition solutions, analytics, and speaker authentication across a wide variety of industries. Listen to presentations from companies in the following industries:

- ♦ Financial Services
- ♦ CPG/Retail
- ♦ Healthcare
- ♦ Government/Utilities
- ♦ Telecommunications
- ♦ Insurance
- ♦ Automotive
- ♦ Order Entry

In addition to formal conference sessions, there are many networking opportunities to meet other customers, including breakfasts, session breaks, lunches, receptions, and informal gatherings of customers with similar interests.

**Natural Language Processing Techniques**

CI05

**3:15 p.m. – 4:00 p.m.**MODERATOR: **Tom Schalk**, Vice President, Voice Technology, ATX

This session will examine robust linguistic dialogue tools applicable to voice application development. Proper use of these newly developed tools makes it easy to realize a cost-effective implementation of caller query handling and executing transactions in a natural language fashion. Additionally, this session will discuss adaptive techniques designed to dynamically adjust prompting in terms, speaking rate, and content. Ultimately, applying the methodology and products discussed in this session results in an improved user experience, better automation rates, and increased IT efficiency.

**Improved Customer Experience with a Natural Language Solution****Peter Trompetter**, VP Global Development, GyrusLogic, Inc.

The presentation will emphasize the benefits of ASR/VoiceXML application developments with the use of robust artificial intelligence (AI) tools for easy and cost-effective implementation of answering a caller's questions, executing transactions in a conversational dialogue and/or natural language fashion. The solution presented is a linguistic AI conversational dialogue product suite to complement the ASR and/or VoiceXML application developments achieving the caller's first contact resolution.

**Adaptive Audio IVR Software for IT Efficiency****Daniel O'Sullivan**, President/CEO, Interactive Digital

Adaptive audio IVR software can dynamically adjust the speaking rate (in words per minute) and audio message content of voice applications on individual caller skills. This personalizes the call experience as it happens, creating more responsive and more productive customer experiences. The process emulates what humans do naturally to communicate more effectively with each other during normal conversation. The benefits of adaptive audio include decreased average handle times and increased average handle rates, ultimately resulting in increased customer satisfaction.

**Virtualization and Intelligent Integration**

CI06

**4:15 p.m. – 5:00 p.m.**MODERATOR: **Tom Schalk**, Vice President, Voice Technology, ATX

The first presentation identifies how virtual IVR technology can enable each deployed speech application to operate in an independent space with its own speech resources, configuration, and reporting. Virtualization is ideal for large companies, carriers, hosting, and any environment with many applications. This solution simplifies the deployment of multiple speech recognizers, development tools, applications, and teams of developers. The second presentation describes how speech technology increases safety and improves communication for police officers who must interact with a license plate database while driving or interviewing suspects outside of the patrol car.

**IVR Virtualization: Platforms for Parallel Speech Development and Deployment****Rob Kassel**, Vice President, Marketing & Product, Holly Connects

Virtual IVR technology enables each speech application deployed to a platform to operate in an independent space with its own speech resources, configuration, and reporting. Virtualization is ideal for large companies, carriers and hosting, and any environment in which there are many applications because it provides a natural efficiency for developers, user interface designers, and operational staff. Virtualization simplifies the deployment of multiple speech recognizers, multiple development tools, multiple applications, and teams of developers.

**The Challenges of Mixing Speech Technologies in the Development and Deployment of Speech Applications****Nava Shaked**, CRM and CC Leader, IBM

We are often asked by our customers both to enhance system efficiency and to maximize results. These goals can be reached by combining two or more speech technologies such as speech recognition and speech biometrics. Successful cross-technology integration requires not only the core technology interface but also development of the appropriate VUI. These will be dis-

cussed in the presentation by illustrating real customer problems and issues with some solutions suggested. In addition, the presentation will address regulation and business considerations that result from this approach.

**WELCOME RECEPTION** ♦ Sponsored by **angel.com****5:00 p.m. – 7:00 p.m. in the Exhibit Hall****TRACK D** ♦ Shubert Complex (6th Floor)  
**DEVELOPMENT AND DEPLOYMENT**

DI01

**Design Methodologies and Tools****10:15 a.m. – 11:00 a.m.**MODERATOR: **Ingmar Kliche**, Project Manager, T-Systems Enterprise Services GmbH

How can systematic design methodologies and usable tools decrease the time and effort to create useful user interfaces? The first presentation describes developer experiences designing a multimodal user interface using a standard product development methodology, modified to include special steps for designing voice and graphical components. A formal procedure for evaluating and selecting voice-enable features to include with the GUI will be detailed. The second presentation overviews speech application development tools, identifies gaps created by using disjointed technologies, and describes the need for a new generation of tools to reduce the overall complexity of delivering speech applications and to strike the right balance between customer controls over an application while maintaining integrity.

**A Multimodal Interface for Call Center Agents****Matthew Yuschik**, Human Factors Specialist, Multichannel Self Care, Convergys

How can systematic design methodologies decrease the time and effort to create useful multimodal user interfaces? This presentation describes developer experiences designing a multimodal user interface using a standard design methodology, modified to include special steps for designing the voice and graphical components. This presentation describes a formal procedure for evaluating and selecting voice-enable features to include with the GUI and discusses product development stages and test results.

**It's All Connected: The Dysfunctional Relationship Between the Toolbox and Successful Speech Applications****Leah Eyler**, Product Manager, SpeechCycle

Today speech application developers have a mixed bag of tools targeted at a range of skills, resulting in a range of solutions but very few in support of a comprehensive approach to development. This presentation will discuss the evolution of speech application development tools and the gaps created by using disjointed technologies. Because of the connections between VUI, development, QA, and analysis, there is a need for a new generation of tools to reduce the overall complexity of delivering speech applications and to strike the right balance between customer controls over an application while maintaining its integrity. Learn what to consider when selecting development tools.

**Speaking and Listening to Mobile Devices**

DI02

**11:15 a.m. – 12:00 p.m.**MODERATOR: **Ahmed Bouzid**, Senior Product Manager, Angel.com

Speech technologies will be an integral part of the user interface on cell phones, PDAs, and other mobile devices. This session discusses the problems of designing and implementing user interfaces for mobile devices which are expected to soon be widely used.

**Steps to Determine Multimodal Mobile Interactions****Matthew Yuschik**, Human Factors Specialist, Convergys

By observing call center agents using a multimodal tool that overlays speech onto an existing GUI, multimodal procedures are identified that reduce the complexity and increase the efficiency of the transaction. This process becomes an early step in migrating an agent-enabled transaction in the call center to a self-service transaction performed

by the caller on their mobile hand-held device. Yuschki describes the steps in the design procedure that highlight how call center agents become a testbed for end-user multimodal UIs.

## SPONSORED KEYNOTE LUNCH ♦ Sponsored by VoiceObjects

### Phone 2.0: The Mobile Generation at Work

12:00 p.m. – 1:15 p.m. ♦ Broadway Ballroom, 6th floor

**Beatriz V. Infante**, President and CEO, VoiceObjects, Inc.

### New Standard Languages for Developing Speech Applications

1:15 p.m. – 2:00 p.m.

MODERATOR: **Yves Normandin**, President, NuEcho

The World Wide Web Consortium (W3C) has published a working draft for two new standard XML languages for developing speech applications. The Pronunciation Lexicon Specification is a standard XML interface for speech recognition engines and speech synthesis engines to access lexicons of words and their pronunciations. The State Chart XML (SCXML) describes an XML syntax for representing dialogue flow control using the popular state chart notation. SCXML will be an important component of the forthcoming VoiceXML 3.0 as well as in a variety of nonspeech applications.

### How to Improve TTS and ASR Performance

**Paolo Baggia**, Director of International Standards, Loquendo

The accurate specification of the correct pronunciation is critical to the success of many speech applications, especially when targeting multilingual applications. For example, the incorrect pronunciation of proper names and place names can confuse and mislead users. The Pronunciation Lexicon Specification (PLS) is a new W3C voice browser standard designed to enable interoperable specification of pronunciation information for both ASR and TTS engines. The presentation will demonstrate how PLS enables the efficient development and deployment of speech applications that share pronunciation lexicons. Extensive examples and case studies will be presented.

D103

## Modular Data Components in SCXML

**James Barnett**, Senior Technical Director, Aspect Software

The State Chart XML (SCXML) describes XML syntax for representing dialogue flow control using state chart notation (an extension of state transition diagrams). SCXML will be an important component of the forthcoming VoiceXML 3.0 as well as be used for a variety of nonspeech applications. The latest W3C working draft of the SCXML specification provides a modularization of the language. This talk will provide an overview of this modularization with particular emphasis on its pluggable data model. Specifically, platforms can plug in different data languages, such as XML and ECMAScript, to suit different applications.

## Advanced Techniques for Using Grammars

2:15 p.m. – 3:00 p.m.

MODERATOR: **Rob Kassel**, Vice President Marketing & Product, Holly Connects

This session discusses two advanced grammar techniques. First, the W3C standard ABNF grammar format is extended for the design and implementation of dynamic grammars that can be edited, tested, and debugged using the same set of tools that help a speech scientist build effective static grammars. Second, when standard transcribed data is not available, algorithms generate grammar weights based on data available from the application. These presentations will cover how to use both innovative techniques that promise to improve speech recognition accuracy.

D104

## Developing Robust and Efficient Dynamic Speech Recognition Grammars

**Dominique Boucher**, Lead Software Developer, NuEcho

The W3C standard ABNF grammar format is extended for the design and implementation of dynamic grammars. Using this approach, dynamic grammars can be viewed as a seamless evolution of existing static grammars instead of a separate set of resources in a project. These dynamic grammars can be edited, tested, and debugged using the same set of tools that helps a speech scientist build effective static grammars, including a

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feature-rich grammar editor, coverage tools, phrase interpretation, semantics stepping, intelligent sentence generation, and so on.

### Leveraging Existing Reporting to Rapidly Tune Speech Applications

**David Claiborn**, Senior Designer, United Healthcare

A common misconception in speech is that one can only tune an application with thousands of transcriptions. When standard transcribed data is not available, algorithms generate grammar weights based on standard reporting data. This presentation will cover techniques for using nontraditional data to deliver a rapid round of tuning.

### Integrating Speech Technologies With Enterprise Applications

DI105

3:15 p.m. – 4:00 p.m.

MODERATOR: **Rob Kassel**, Vice President Marketing & Product, Holly Connects

Services-oriented architecture (SOA) will be a significant area of technology investment for enterprises. New technologies make it possible for contact centers to tap into the SOA to drive more advanced speech applications with shorter development times and less risk. This session will focus on the technical standards and practices that allow speech-enabled IVRs to benefit from existing and upcoming SOA investments. The session will also emphasize practical tips and real-world examples.

### Integrating Speech Applications With Enterprise IT Assets Using Web Services

**Michael Codini**, Chief Technical Officer & Co-Founder, VoiceObjects

One shortcoming of many speech applications deployed today is the lack of integration between these applications and the rest of an enterprise's IT infrastructures. As a result, valuable opportunities to enhance speech applications using intelligence contained in an organization's web, CRM, and other IT assets are lost, and IT efficiency suffers. Web services integration between speech applications and other enterprise IT assets can remedy this situation. Learn how web services can be applied to call center and other speech-enabled environments and how to fully leverage CRM, BI, and other IT assets via web services.

### How Speech Recognition Works in the Service-Oriented Architecture

**John Oh**, Technical Lead, Customer Contact Business Unit, Cisco

According to Gartner, spending on service-oriented architecture is expected to grow from \$14 billion in 2005 to \$189 billion in 2009, making it the single-most significant area of technology investment for the enterprise. New technologies make it possible for contact centers to tap into the SOA to drive more advanced speech applications with shorter development times and less risk. This session will focus on the technical standards and practices that allow a speech-enabled IVR to tap into the benefits of an existing or upcoming SOA investment. The presentation will include practical

how-to's and real-world examples drawn from the experiences of two large financial services companies.

### The Impact of W3C Standard Languages

DI106

4:15 p.m. – 5:00 p.m.

MODERATOR: **James Barnett**, Senior Technical Director, Aspect Software

The publication of W3C standard languages, such as VoiceXML and CCXML, has dramatically changed the speech application design process. This session discusses some of the efforts to extend and validate the use of standard languages. First, learn how the call control language can work with SIP and VoIP to implement an extensible SIP softswitch. Then discover how the VoiceXML Forum's certification program has impacted the cross-vendor interoperability of VoiceXML by VoiceXML platform vendors.

### SIP Applications Using CCXML

**R.J. Auburn**, Chief Technical Officer, Voxeo

Developers are increasingly using the W3C Call Control language, CCXML, to add call control features to their telephony applications. At the same time, Session Initiation Protocol (SIP) and Voice over IP (VoIP) have found widespread acceptance and deployment in everything from long-distance networks to enterprise call centers and in consumer telephony. Learn how SIP, VoIP, and CCXML can work together in next-generation telephony deployments, plus the advantages and disadvantages of a combination of both. Learn how CCXML can be used to implement an extensible SIP softswitch.

### VoiceXML Platform Certification: What Every Customer Should Know

**Ken Rehor**, Founder, VoiceXML Forum

VoiceXML platform certification has helped to stabilize and mature the speech and contact center industry by encouraging the cross-vendor interoperability of platforms, tools, and applications. Along the way, certification has become a key speech system RFP criterion for savvy companies adopting speech. This presentation will discuss why VoiceXML platform certification is an indispensable requirement of a complete speech system specification. This presentation will also detail the pitfalls that customers may encounter in choosing self- or vendor-certified platforms. A summary of what is covered and what is not covered by the VoiceXML platform certification will be presented.

### Welcome Reception

Sponsored by  
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All SpeechTEK attendees are invited to a Grand Opening Reception from 5:00 p.m. – 7:00 p.m. in the Exhibit Hall on Monday.

Network with exhibitors, speakers, and conference attendees while enjoying a glass of wine and light hors d'oeuvres.

## Monday Sunrise Semester Discussions ♦ 8:00 a.m. – 8:50 a.m.

Royale Room (6th floor)

### SUNRISE SEMESTER DISCUSSION I

#### Emotion in Speech Technology

DISCUSSION LEADER:

**Paolo Baggia**, Director of International Standards, Loquendo SpA

Join us for a short overview of how emotions impact on speech applications, including speech synthesis, speech recognition and facial expressions. Possible discussion questions include the following:

- What are the types of emotion that would be useful to detect during speech recognition?
- How would an application respond when it detects various emotions?
- How would an application express emotions?
- How can existing applications be enhanced by emotions in speech technology?
- What new applications are enabled by emotions in speech technology?

### SUNRISE SEMESTER DISCUSSION 2

#### The Effectiveness of Marketing Messages, Legal Verbiage, and Website References in IVR Systems

DISCUSSION LEADER:

**Renae Rogers**, Dialogue Designer, West Corp.

Marketing messages, legal verbiage, and web references in speech applications all compete for the time your customer has to listen and speak. Improper placement and verbiage can distract the caller and reduce the effectiveness of even the best speech application. Learn how customers feel about these messages and some practical lessons to maximize their affect while not hurting your prospects for voice self-help.

## Keynote

## Preparing for the New Consumer

9:00 a.m. – 10:00 a.m. ♦ Broadway Ballroom



**Lior Arussy**, author of several books, including his most recent, *Excellence Every Day: Make the Daily Choice—Inspire Your Employees and Amaze Your Customers (Information Today, Inc.)*

Despite technological innovations, companies are failing to meet increasing customer expectations. To stay competitive, organizations must meet customers' growing demands by incorporating new ways of thinking, connecting, and doing business that will create profitable and delightful customer experiences. Lior Arussy is a renowned author; business visionary; creative catalyst; and president of Strativity Group, a consultancy which advises Global 2000 companies and emerging businesses around the world. Arussy will address the biggest customer strategy issues facing organizations today, such as the new rules of customer engagement, and offer suggestions on how to better prepare for the new consumer.

TRACK A ♦ Soho Complex (7th Floor)  
MEETING BUSINESS GOALS  
WITH SPEECH TECHNOLOGY

## Speech: Thinking Out of the Box

A201

10:45 a.m. – 11:30 a.m.

MODERATOR: **Judith Markowitz**, President, J. Markowitz Consultants  
PANELISTS:

**Whitney Quesenberry**, Consultant/Researcher, WQ Usability

**Moshe Yudkowsky**, President, Disaggregate

**Steve Chirokas**, Vice President of Marketing, SpeechCycle

What are the bleeding-edge possibilities for speech technology? In this panel we take 3 steps back to reexamine speech from the outside to get a new perspective on where we stand today and where we could be tomorrow. Join us for a forward-thinking conversation on how speech can be an empowering technology for the automated, mobile interfaces of the future.

## Video in the Network and Call Center

A202

11:45 a.m. – 12:30 p.m.

MODERATOR: **Valentine Matula**, Director, Multimedia Research, Avaya

Is there a place for video alongside your speech solution? Experts in this session make the case for how video technology offers new opportunities in the call center and next-generation networks. Learn how video will change the ways we approach self-service and about the new business opportunities video will enable.

Video-Based Call Centers and Self Service Applications:  
Is There an Untouched Need Out There?

**Bob Cooper**, Chief Architect, Voice Portal, Avaya

How will the customer experience change when video-based call centers and self-service applications become available? What new services that we are not considering today will become commonplace and what will they mean to your call center? This session will look into a few scenarios and discuss the technical hurdles that must be overcome. You will also learn which international locales are best prepared to deploy these technologies.

## Opportunities for Video in the Next-Generation Network

**Rob Marchand**, Senior Director, Product Management, Genesys  
Telecommunications Laboratories

This session will discuss opportunities for the deployment of speech-enabled video applications in the enhanced-services and managed-service environments. The discussion will include overviews of real-world deployments, plus a review of the challenges that remain. Topics will cover architecture, applications, and standards, including SIP and VoiceXML.

## SPONSORED KEYNOTE LUNCH ♦ Sponsored by Tellme. A Microsoft® subsidiary

## Remember Me: A Case Study on Personalized Self-Service

12:30 p.m. – 1:45 p.m. ♦ Broadway Ballroom, 6th floor

**Tracy Griffith**, Sr. Manager Customer Technology Reservations & Premium Services, American Airlines

In 2007, American Airlines launched an industry-leading telephone service for its frequent fliers to deliver proactive information based on the callers' upcoming needs. A year later, find out how American Airlines did it and whether the investment has paid off — both for travelers and for American Airlines. AAdvantage members can enroll in "Remember Me" with the instructions at [www.aa.com/callaa](http://www.aa.com/callaa).

## Cross-Channel User Experience

A203

1:45 p.m. – 2:30 p.m.

MODERATOR: **Eduardo Olvera**, Senior User Interface Designer, Nuance Communications

The days of having a speech strategy separate from an overall user-experience strategy are over. For a strategy to be meaningful, organizations must consider speech technology as one element in a multichannel customer contact plan that encompasses all the ways in which the customer might interact with them. This session will provide valuable lessons in understanding how speech fits with the web, printed material, live customer service, and other channels through which organizations touch their customers.

## Is Your Caller Experience Web-Aware?

**Lizanne Kaiser**, Customer Experience Designer, Genesys  
Telecommunications Laboratories

The rapid expansion and penetration of the web has dramatically changed customer behavior not only online but also during phone calls. Despite this, automated phone systems are often still designed as siloed channels. Speech systems that lack web-awareness provide incoherent customer experiences, damaging customer loyalty and business benefits. Drawing from client case studies, this presentation will explore the impact of the web on customer behavior and expectations, metrics for assessing the web-awareness of your caller experience, design guidelines for creating web-aware speech systems, and predictions about the evolving convergence of the web and phone, along with the ramifications for speech technology.

Speech and the Cross-Channel Customer Experience:  
Leveraging Speech to Improve Branding, Customer  
Satisfaction, and Self-Service Rates

**Elaine Cascio**, Vice President, Vanguard Communications

Customers conduct business with companies through many different channels, but the experience is often disjointed and inconsistent. This creates customer confusion and frustration or, even worse, abandonment for the competition. They'll also tell at least five others about their dissatisfaction. In this session, you'll learn how your speech application is a critical component to building a positive cross-channel customer experience. We will examine how speech can contribute to the overall multimedia brand experience and build customer loyalty, plus we'll look at real-life examples of organizations that provide seamless cross-channel service (as well as some that don't). Finally, we will outline the critical steps you should take to ensure your customer has an engaging, seamless, and positive experience.

## Speech in CPG/Retail

A204

2:45 p.m. – 3:30 p.m.

MODERATOR: **Sunil Issar**, Director, Convergys

Consumer packaged goods companies and retailers rely on speech technology in a variety of ways. This session will focus on two of them: warehousing and customer self-service solutions. One presentation will feature Coca-Cola's warehouse voice picking system, based on inexpensive IP-phones and network-based speech recognition, which yielded significant cost reductions.



**VoIP Creates New Approach to Speech-Based Warehousing****CCS Michael Jacks**, Senior Manager, Logistics & Transportation, Coca-Cola Enterprises

Coca-Cola Enterprises created the first-ever deployment of warehouse voice-picking based on inexpensive IP phones and network-based speech recognition. The results? Significant reductions in per-device costs and total cost of ownership. This presentation will provide insights into what drove this innovation, the results achieved, and future plans to leverage speech capabilities on a services-oriented architecture (SOA) basis throughout the company.

**Guided Self-Service Solution for Call Centers****CCS Tom Scott**, CIO and SVP, Operations, Spiegel Brands

The Spiegel call center has replaced the traditional menu-driven touchtone approach to receiving and routing calls with guided self-service. This session takes an up-close look at the new solution, which enables a behind-the-scenes human guide to monitor and assist four or more simultaneous calls, resulting in a better caller experience with reduced ordering and customer service costs.

**The VUI Backlash****4:15 p.m. – 5:15 p.m.****MODERATOR: Lizanne Kaiser**, Customer Experience Designer, Genesys Telecommunications Laboratories

Touchtone IVRs was once the technology people loved to hate—an object of ridicule in popular culture, one of the slings and arrows of modernity we were forced to suffer. Speech recognition was billed as a solution to the ills of touchtone, but there are rumblings that speech-enabled IVRs are rapidly taking the place of touchtone in the cultural hall of shame. In this session, we examine what the general public really thinks about speech and examine why speech hasn't lived up to the initial hype. The speakers will explore the reasons people are dissatisfied and ways to alleviate their distress.

**A205****Why People Really Hate IVRs and What to Do About It****Ahmed Bouzid**, Senior Product Manager, Angel.com

IVR systems are generally perceived by users as obstacles installed by companies to keep callers from reaching expensive human agents, rather than helpful tools that can effectively serve callers' needs. IVRs are not only failing to do their jobs, but they are also pushing some of users' most sensitive hot buttons. This session will identify these emotional triggers and offer some clear guidelines on ensuring the deployment of highly usable IVR solutions.

**Get Human, Get Real****Simonie Wilson**, Senior Speech Scientist, Intervoce

Some key issues have been missed in the ongoing discussion about GetHuman, a movement founded by Paul English and based on his belief that a live agent is always better than an IVR of any kind. The truth is, it's not that simple. From a desire for privacy, to needing assistance in the middle of the night, to a dislike for offshoring, callers have many reasons to prefer automated systems instead of live agents. We'll discuss how to improve the automated part of a call, and maybe we can offer some suggestions for the GetHuman initiative.

**Have Your Cake and Eat It Too****Nick Ezzo**, Director of Marketing, TuVox

Many people believe that providing an excellent caller experience is an unnecessary expense—that "caller experience" and "business benefits" are contradictory terms. Based on data from actual implementations, this session will methodically build a case that proves a great caller experience

leads to direct business benefits, including faster calls, happier customers, productive agents, and lower phone bills. Yes, you can have your cake and eat it, too.

**ATTENDEE RECEPTION** ♦ On the 9th Floor**5:30 p.m. – 7:00 p.m.****TRACK B** ♦ Empire Complex (7th Floor)  
**VUI DESIGN PRINCIPLES AND TECHNIQUES****How Do You VUI?****10:45 a.m. – 11:30 a.m.****MODERATOR: Peter Krogh**, Speech Mechanic, SpeechCycle

There's more than one way to design a good voice user interface. Join us for a session in which VUI experts give us new ways of thinking about VUI issues. Learn how the precise wording of VUI prompts can vastly influence the way users respond and for a discussion on the impact new VUI standards will have on our industry. Come and participate in what promises to be a spirited debate of some of the most important issues in VUI design today.

**B201****Coffee? Tea? Yes, Please****David Suendermann**, Speech Science Engineer, SpeechCycle  
**Ethan Levine**, Voice Interaction Designer, SpeechCycle

When designing a troubleshooting application, much effort is put into finding an optimal balance between eliciting in-grammar responses and brevity of dialogue. This session will present data from calls to live systems that used three styles for eliciting responses: giving the caller explicit instructions as to the set of valid responses; phrasing a question to include the set of valid responses, though not explicitly stating how the caller should respond; and phrasing a question without any guidance. Of note, certain formulations encouraged ambiguous responses; we will discuss relevant avoidance and recovery strategies for these.

**Getting Serious About IVR Dialogue Standards: A Framework for Action****Bruce Balentine**, EVP and Chief Scientist, Enterprise Integration Group  
**Ken Rehor**, Founder, VoiceXML Forum

User interface standards offer both utility and disruption to the many players involved in IVR, including end users, enterprise stakeholders, call center agents, technology vendors, and VUI designers. Conflicts of interest and philosophy constitute a culture of resistance that has reduced IVR quality and raised costs worldwide. The goal of this presentation is to propose a framework for which an organized and representative community of stakeholders within the IVR industry can go about agreeing on a standardized set of IVR behaviors for telephone-based dialogues.

**Inaugural Meeting of the Association for Voice Interaction Design****11:45 a.m. – 12:30 p.m.****MODERATOR: Susan Hura**, Principal, SpeechUsability

At SpeechTEK 2007, a group of user interface designers met and agreed that our profession needs an organization to promote excellence in voice interaction design, facilitate professional development, and provide an opportunity to share experiences with other designers. The result of that 2007 meeting is the Association for Voice Interaction Design (AVID). Join us for the inaugural meeting of AVID for the opportunity to vote on the proposed charter and elect officers. Read the charter online at [www.avixd.org](http://www.avixd.org) before the meeting and come prepared with questions and suggestions.

**B202****Breakfast & Coffee Breaks**

A continental breakfast will be provided for conference attendees each morning from 8:00 a.m. to 9:00 a.m. before the keynote session. Additional coffee breaks will take place each morning and afternoon. Please check the schedule for exact times and locations.

**SPONSORED KEYNOTE LUNCH** ♦ Sponsored by **Tellme.**  
A Microsoft® subsidiary**Remember Me: A Case Study on Personalized Self-Service****12:30 p.m. – 1:45 p.m.** ♦ Broadway Ballroom, 6th floor**Tracy Griffith**, Sr. Manager Customer Technology Reservations & Premium Services, American Airlines

**Business Problems, VUI Answers****1:45 p.m. – 2:30 p.m.**

MODERATOR: **David Martin**, Principal Consultant-Speech Engineering, Avaya  
**Mark Webb**, Process Engineer-IVR, Humana  
**Daniel Padgett**, Sr. VUI Consultant, VoicePartners

Come to this session to hear the inside story of the VUI process from two perspectives. In the first presentation, the customer organization, Humana, presents the business challenges that led the company to seek a speech solution. Next, the solution provider, VoxGen, presents its view of the situation and discusses the methodology used to develop a highly effective solution for its client. Join us for this unique opportunity to talk with both the customer and the vendor together to understand how to work as a team to solve business problems with speech.

**B203****VUI Design for Multimodal Applications****2:45 p.m. – 3:30 p.m.**

MODERATOR: **Jonathan Bloom**, Senior Interaction Designer, SpeechCycle  
 Here you'll see multimodal user interface design in action. These presentations will give real-life examples of multimodal user interfaces incorporating speech technologies. Presenters will highlight the challenges of integrating speech with a visual interface and describe the techniques they used to design effective, pleasing user interfaces. Come to see demonstrations of both a multimodal voting system and multimodal games with speech controls and decide if multimodal is ready for prime time.

**B204****Prime III: A Multimodal Approach to Electronic Voting**

**Juan Gilbert**, T-SYS Distinguished Associate Professor, Auburn University

Prime III is a multimodal electronic voting system designed, implemented, and tested by the Human Centered Computing Lab at Auburn University. The system has caught the attention of Congress, local and national media,

lobbyists, etc. This session features a demonstration of Prime III, as well as a discussion about how speech was incorporated into this award-winning application, which could change the way we vote.

**Talking Games: Toward Speech as a Mainstream Modality**

**David Thornton**, Instructor, Auburn University

This session will describe the results of an ongoing study of speech-based cursor control mechanisms—research that is intended to provide user data to influence the design of future systems involving real-time demands, very small targets, and moving targets. One such application of this research is in the area of video games. These findings also have implications for physically impaired users whose primary or only control modality is speech.

**Driving the Conversation Forward in the Face of Errors****4:15 p.m. – 5:15 p.m.**

MODERATOR: **Jim Milroy**, Director, Creative Services, West Interactive

Users encounter error conditions in every voice user interface, and VUI designers must plan for how they will deal with inevitable errors. Conversational errors occur regularly in human-to-human communication as well, but we deal with them so seamlessly that the positive flow of conversation is rarely interrupted. The way we deal with conversational errors in VUIs is rarely this smooth and often begins a needless progression toward the failure of the interaction. The experts in this session explore new ways to look at error conditions and methods for dealing with errors, with the goal of building VUIs that de-emphasize errors and move conversation forward.

**B205****A New Perspective on Speech Recognition Errors**

**Gregory Simsar**, Vice President Speech Services, Syntellect

Many types of speech communication behaviors that humans handle effortlessly are not even detected by today's speech recognition systems, let

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alone handled gracefully. Only by taking a new perspective on the types of errors that are encountered by speech recognition systems—and by mapping them to the types of errors that occur in human-to-human interaction—can we start to make significant improvements in how errors are handled. This presentation builds on a SpeechTEK VUI workshop and subsequent article in Speech Technology magazine about a new taxonomy for speech recognition errors.

### The Subtle Science of Failing: How to Retry

**Jonathan Bloom**, Senior Interaction Designer, SpeechCycle  
**Jackson Liscombe**, Speech Engineer, SpeechCycle

Just like humans, speech recognition systems do not always understand their conversational partners. How should these systems recover when recognition confidence is low? Up until now, designers have based their retry strategy mostly on tradition, bombastic opinion, anecdotal evidence, or, at best, one-off opinions from usability test participants. In this presentation, we will discuss research based on tens of thousands of calls, each hitting one of four different retry styles: an apologetic preamble, a preamble without an apology, an abbreviated retry, or a retry avoiding explicit references to self. We will base the relative success of each strategy on turn success rate, average number of retries required per turn, percentage of out-of-grammar utterances, automation rates, and caller satisfaction.

### Refocusing Caller Intent: Approaches for Building Fault-Tolerant Voice User Interfaces

**Jessica Peterson**, Speech Technology Consultant, and  
Based on real-world deployments, this session will present detailed aspects of a framework for natural language routing applications. You will learn how to adapt confirmation states to specific types of initial caller requests to elicit usable input that leads to successful call routing, as well as strategies for handling callers who provide input to a natural language main menu that cannot be successfully mapped to a business category. You'll gain a new approach that creates a second chance to harness the benefit of natural language recognition when warranted, with the goal of creating a smarter speech application and improving the overall user experience.

### ATTENDEE RECEPTION ♦ On the 9th Floor

5:30 p.m. – 7:00 p.m.

### TRACK C ♦ Majestic Complex (6th Floor) ADVANCED SPEECH TECHNOLOGIES SYMPOSIUM

### Natural Language Processing: Automaticity

C201

10:45 a.m. – 11:30 a.m.

MODERATOR: **Bill Scholz**, President, NewSpeech LLC

The use of statistical natural language processing continues to expand, but its growth pace is inhibited by the cost of language model development and maintenance. This session describes a framework that automatically adapts and changes automatic speech recognition language models over time and considers the evolution of applications from pure speech recognition systems, to mixed-initiative systems with less rigid behavior, and to voice systems that incorporate proven technologies to become not only smarter but less complex to maintain.

### CAVA: Continuous Automatic Vocabulary Adaptation

**Mark Pfeiffer**, VP Business Development & Communications, SAIL LABS  
Technology AG

CAVA from SAIL LABS is a framework that automatically adapts and changes automatic speech recognition language models over time to current affairs. The user determines areas of interest that are to be harvested for domain- or topic-specific data, which subsequently form the basis of automatic language model creation. Data sources are combined according to their relevance to yield a series of domain-, time-, and topic-specific language models. This mix of language model data and sources then adds and subtracts words and terms depending on their relevance in the current deployment environment. This processed data is then optionally qual-

ity checked by human interaction or runs unattended. Key ideas include the automatic adaptation of the language model to the interests of the user which allows deployed systems to adapt to dynamically and quickly changing environments without interaction by the vendor of the system, as well as identification of the ideal point in time to rebuild a language model.

### Advancing Toward Intelligent Agents

**Emmett Coin**, Speech Scientist, ejTalk

Voice applications began as almost pure speech recognition systems: speaking choices, numbers, etc. Primitive directed dialogues followed. Now many applications support some sort of mixed initiative as they progress toward less-rigid behaviors. Sadly, these methods are already failing to meet the expectations of users, not to mention leading to paralyzing complexity for developers. Going forward, voice systems will incorporate other existing and proven technologies to make applications smarter. These technologies have the potential to dramatically reduce the complexity of development for today's sophisticated voice applications. This session will compare and contrast the benefits and limitations of these technologies ranging across natural language processing, rule-based and case-based reasoning, and statistical and connectionist (neural net) approaches.

### Enhanced VUI: Context-Sensitive Dialogue

C202

11:45 a.m. – 12:30 p.m.

MODERATOR: **Tom Schalk**, Vice President, Voice Technology, ATX

Natural language understanding (NLU) technologies can significantly improve caller experience and improve business metrics such as routing accuracy and call completion rates. The ultimate goal is to deliver intelligent responses to natural speech input. Based on the current state of speech recognition technologies, NLU technologies need to be used selectively to achieve the best performance. For example, it may be better to use a menu followed by an open-ended prompt instead of the reverse. This session dives deep into NLU technologies and how to build robust statistical models for optimal performance. Interesting application performance results are discussed, including effective handling of spontaneous speech.

### Building Robust NLU Applications

**Sunil Issar**, Director, Convergys

Natural language understanding (NLU) technologies can significantly improve caller experience and improve business metrics such as routing accuracy and call completion rates. These technologies allow the caller to speak naturally. In general, based on the current state of speech recognition technologies, NLU technologies need to be used selectively to achieve the best performance. For example, it may be better to use a menu followed by an open-ended prompt. We will describe when it is appropriate to use NLU technologies and how to build robust statistical models for optimal performance. We will also describe results comparing performance of directed dialogue and statistical grammars. Key Ideas: NLU can improve business metrics; NLU technologies need to be used selectively for optimal performance; VUI design and statistical models need to handle spontaneous speech, which introduces additional complexities.

### Intelligent Responses to User Input

**Susan Boyce**, Principal Designer, Tellme (a subsidiary of Microsoft)

Customizing voice applications for individual users can have several beneficial effects. Accurately anticipating the reason for a call can streamline the interaction. Other characteristics of the caller, such as location or previous calling history, can be used to enhance recognition performance. This presentation will review examples of effective use of personalization in voice applications and set forth some guidelines.

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### Remember Me: A Case Study on Personalized Self-Service

12:30 p.m. – 1:45 p.m. ♦ Broadway Ballroom, 6th floor

**Tracy Griffith**, Sr. Manager Customer Technology Reservations & Premium Services, American Airlines



**Enhanced VUI: Dynamic Response Generation****C203****1:45 p.m. – 2:30 p.m.**MODERATOR: **Bill Scholz**, President, NewSpeech LLC

As speech applications grow in sophistication, they are moving beyond rigid preconceived dialogue flow toward user interaction that responds dynamically to the overall context of the conversation. Speakers in this session consider recent success in building applications with this evolving behavior and will review experiments designed to evaluate the benefits of this growing sophistication in user interaction using a large subject pool.

**Shifting the Intelligence Burden:  
The Limits and Possibilities of VUI Design**
**Ahmed Bouzid**, Senior Product Manager, Angel.com

VUIs are restrictive in three crucial ways: They are time linear—you must patiently listen to one word before you can hear the one that follows it; unidirectional—when you hear something you can't easily go back and listen to it again; and invisible—you can't easily figure out where precisely you are in the interaction and what exactly the system expects you to do next. This session will cover several types of contexts that can intelligently inform management of an interaction, such as user profile, recent caller history, call initiation context, and call population distribution. Being aware of the context of the call can help facilitate numerous intelligent adaptations.

**The Intelligent Customer Front Door (iCFD)****Phil Shinn**, Principal Consultant, Voice Application Services, Genesys Telecommunications Laboratories

The iCFD not only greets a caller, but also gathers their intent, adds contextual information from their profile and history, and then makes a decision based on business rules on how to route the caller to the most suitable resource (either automated or live agent) to most effectively resolve the interaction. This dynamic approach is different from traditional static IVR applications in that it utilizes a blended strategy that considers an individual caller's value, the current state of call center queues, information from CRM databases to construct, on-the-fly, a unique and personalized caller experience. This talk with focus on the methods and features used to build a iCFD, and discuss some case studies.

**Advances in Automotive Speech****C204****2:45 p.m. – 3:30 p.m.**MODERATOR: **Tom Schalk**, Vice President, Voice Technology, ATX

The human/machine interface in the vehicle is evolving quickly and now allows drivers to use speech to control music, phones, navigation systems, and other functionalities, making it possible to be more productive while driving. This session will reveal the latest in embedded natural language interaction and dialogue management technologies from a major research center, and how it can be applied in the vehicle. Beyond the user interface itself, also critical for speech enablement is proper microphone configuration and specialized acoustic models targeted at handling far-field speech under noisy driving conditions. This session is a must for those interested in what's up and coming in automotive speech.

**Conversing With Your Car****Roberto Sicconi**, Program Director, T.J. Watson Research, IBM

This presentation will focus on automotive interfaces that illustrate the latest in embedded natural language interaction and dialogue management technologies. Examples of this are systems that will enable users to converse naturally with devices such as music players and GPS navigation systems to accomplish their objectives easily and efficiently. Key natural language understanding and dialogue management features include state-of-the-art statistical language modeling, natural language understanding technology, and free-form recognition of multiple items in a single request. Excruciating menus are avoided by direct access to most functions and without having to remember specific commands that need to be used at specific places in a dialogue.

**Voice Automation in the Vehicle: Deployments and Trends****Tom Schalk**, Vice President, Voice Technology, ATX

The automobile is designed to be safe to drive, and speech interfaces fit nicely into the driving experience. Today, speech interfaces allow drivers to use speech to control music, phones, navigation systems, and other functionality, making it possible to be more productive while driving. This presentation will analyze significant automotive speech deployments and

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include topics such as microphone configuration, acoustic models, language models, and multimodal interface requirements.

### Ancillary Transcription Techniques

4:15 p.m. – 5:15 p.m.

MODERATOR: **Bill Scholz**, President, NewSpeech LLC

Recognition technology has matured to the point that recorded telephone-quality audio from unknown speakers can be transcribed with sufficient accuracy to support commercial applications such as medical data transcription, broadcast news captioning, and near-real-time conversion of voicemail to text. Recent improvements in transcription quality are achieved through the use of ancillary information such as caller-specific data serving to narrow that speaker's domain, speaker-dependent acoustic models from frequent callers, and the use of CFGs to identify words and phrases that occur with high frequency in the target domain. This session will review the most beneficial ancillary factors contributing to transcription accuracy and illustrate the effects of their incorporation.

### Ancillary Transcription Techniques

**Michael Picheny**, Manager, IBM Research

As applications of large vocabulary speech recognition proliferate, there are increasing opportunities to use various types of side information to enhance recognition accuracy. This presentation will explore a range of side information, ranging from the talker's identity to more subtle information from extrinsic sources, such as questionnaire responses and cross-language constraints. The talk will also address the issues in incorporating various additional information sources in practical deployable systems.

### Speech and Speaker Recognition Systems Can Make Use of More Information

**Jordan Cohen**, Senior Scientist, SRI

Speech and speaker recognition systems can make use of more information than is normally included in an acoustic model. We have been experimenting with the use of back-channel information, word choice, channel modeling, and other measures to assist in performing better speech recognition. In addition, we have started a project to collect data in which speaker style is explicitly controlled. Appropriately modeling the aspects of style is expected to enhance our recognition performance substantially.

### ATTENDEE RECEPTION ♦ On the 9th Floor

5:30 p.m. – 7:00 p.m.

### TRACK D ♦ Shubert Complex (6th Floor) DEVELOPMENT AND DEPLOYMENT

### Securing CCXML and VoiceXML Applications

10:45 a.m. – 11:30 a.m.

MODERATOR: **Jim Larson**, VP, Larson Technical Services

**Dan York**, Director of Emerging Communication Technology, Voxeo

How secure are your speech applications? As the usage of both VoiceXML and CCXML continues to explode, and VoIP usage continues to grow dramatically, especially within enterprise environments, it is increasingly important that you ensure that applications and services are not open to attack. Learn about the potential vulnerabilities in a system using VoiceXML or CCXML, what you can do to secure these systems, and how you can develop a strong architecture.

### Personalization and Context

11:45 a.m. – 12:30 p.m.

MODERATOR: **R.J. Auburn**, Chief Technical Officer, Voxeo

Many consumer websites offer a personalized experience that is highly tailored with readily accessible account information. But what about over the phone? This session will review approaches to using context to improve the user interface dialogue. The first presentation describes recent research on the contextual handling of transfer requests. The second presentation describes recent applications for the airline, entertainment, and financial services industries,

showing advanced personalization features, ANI authentication, and context-specific menus so callers are offered appropriate choices at any point.

### Optimizing a Caller's Request for a Live Agent

**Patrick Nguyen**, Chief Technology Officer, Voxify

How your self-service application handles that desperate cry for an agent is a careful balancing act. The difficulty lies in conflicting objectives—contact centers want to help callers facing problems but avoid unnecessary transfers. If the application transfers without analyzing the situation, the caller might face long hold times and more frustration. New research on the contextual handling of transfer requests have resulted in a flexible approach for dialogue design where the speech application facilitates rather than impedes the completion of callers' goals.

### "Welcome Back, Steve," Said the Friendly ... Computer?

**Steve Pollock**, EVP and Co-Founder, TuVox

It's amazing how quickly you get used to personalized customer service. Most consumer websites offer a personalized experience that is highly tailored with readily accessible account information. Can this happen over the phone? This session will describe a recent application at a major American airline with advanced personalization features, including ANI authentication, greet-by-name, and context-specific menus so that callers are offered appropriate choices at any point.

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### Remember Me: A Case Study on Personalized Self-Service

12:30 p.m. – 1:45 p.m. ♦ Broadway Ballroom, 6th floor

**Tracy Griffith**, Sr. Manager Customer Technology Reservations & Premium Services, American Airlines

### Speech in Healthcare

1:45 p.m. – 2:30 p.m.

MODERATOR: **Raj Tumuluri**, Principal, Openstream

With an ever-increasing focus on accuracy and privacy in the healthcare industry, speech technology is playing a bigger role. The first case study in this session shows how a natural language VUI enables bidirectional access to the entire text-based component of electronic medical records. Learn how this application was designed, implemented, and deployed and how it impacts medical center operations. The other presentation highlights how healthcare companies can use speech technology for outbound calls. Current healthcare protocols often require regular patient follow-up after a hospital discharge or as part of a clinical study. ATS found an IVR application that is just as effective as live nurse calls, more cost effective, and more beneficial—providing more consistent, reliable calls.

### ICIPS: Integrated Clinical Information Phone Service

**Val Nenov**, Adjunct Professor, Division of Neurosurgery, UCLA Medical Center

ICIPS is an ongoing R&D project at the UCLA Medical Center. Its main objective is to provide bidirectional access to the entire text-based component of the electronic medical records using a natural language VUI. Learn how this application was designed, implemented, and deployed and how it impacts the operation of a medical center. This presentation will summarize the strengths and weaknesses of the VUI as compared to an existing GUI.

### When Is a Virtual Nurse Call Better Than a Live One?

**David G. Engelhardt**, President, Advanced Technical Support, Inc.

Current healthcare protocols often require regular patient follow-up after a hospital discharge or as part of a clinical study. Typically, doctors rely on nurses to call patients to monitor recovery or to gather data for statistical analysis. These calls are expensive and time consuming compared to an IVR application that can replace nurse calls. Automated calls were found to be just as effective as live nurse calls and had additional benefits—more consistent, reliable calls were possible. This presentation will discuss the study protocol and the results of the trial. Virtual nurse calls now are a proven, winning strategy for clinical studies and patient care.



**Speech in Government/Utilities****2:45 p.m. – 3:30 p.m.**MODERATOR: **David Thomson**, CTO, *SpeechPhone*

A clear sign that speech has hit the mainstream is when late technology adopters, such as governments and utility companies, are implementing speech solutions. The first case study in this session will describe the development and deployment of a new speech application to provide customer self-service to its San Francisco residents. The second case study discusses why NSTAR chose speech to replace the previous menu structure, integrating with other call center technologies, the importance of load and performance testing and customer reaction.

**Developing Call Center Applications**CS **Marge Vizcarra**, CSM, *City and County of San Francisco***James Whitten**, Assistant Manager, *Contact Center, San Francisco Public Utilities Commission*

The San Francisco Public Utilities Commission will describe the development and deployment of the new speech application to provide customer self-service to its San Francisco customers. The goals of the new system are to increase use of automated offerings, free up agents to assist callers that can only be assisted by a live agent, save agent transfer calls for customers really needing assistance with an easy tool for self-service, and to ensure that a live person is always reachable.

**Improving Customer Experience Implementing a Speech-Enabled IVR at NSTAR**CS **Michael Roberts**, *Business Integration Manager, Customer Interaction Center, NSTAR Electric and Gas*

In this presentation, attendees will learn why NSTAR chose speech technology to replace the existing menu structure, how the interoperability with other call center technologies affected the implementation, how load and performance testing ensured a successful implementation, and what reaction customers had to the new system. NSTAR's telecommunications team learned many lessons during the rollout of the project on both a business and technology levels. Getting management's commitment early in the process and reviewing existing technology for any interoperability issues are two of the lessons learned that will be shared during this presentation.

**Speech in Telecommunications****4:15 p.m. – 5:15 p.m.**MODERATOR: **Judith Markowitz**, President, *J. Markowitz Consultants*

The first case study, by Verizon FiOS TV, will reveal three different approaches to challenge its existing design. All designs were evaluated

**D204**

based on two metrics: number of callers successfully matching their need to a technical support topic and automation rate. One of the designs was a clear winner, improving both accuracy and automation by 10%. The second case study, by Leaco Rural Telephone Cooperative, will cover how to improve the customer experience, brand differentiation, and identity fraud. The third case study will provide an overview of a successful large-scale, customer-facing deployment of voice biometrics technology.

**A Champion-Challenger Experiment for Designing a Natural Language Question**CS **Manohar Kesireddy**, *Business Solutions Architect, Verizon Data Services*

Verizon FiOS TV wanted to determine the best design for a natural language question and back-off menu for a technical support application. The company created three different approaches to challenge the then-existing design. All four were deployed in a limited production release and evaluated based on two metrics: number of callers successfully matching their need to a technical support topic and automation rate. One of the designs was a clear winner, improving both accuracy and automation by 10%. The characteristics of the winning design will be presented.

**Improve the Customer Experience With Voice Authentication**CS **Laura Phipps**, *General Manager and EVP, Leaco Rural Telephone Cooperative*

Leaco is a telecommunications services provider that supplies wireless, wireline, and internet services to approximately 175,000 bilingual and monolingual customers in Southeastern New Mexico. In November 2007, Leaco began rolling out customer-facing speaker-verification services to 12,000 of its customers. The system is designed to address the following issues: improve the customer experience; regulatory compliance (with CPNI); Customer concerns about security; and brand differentiation.

**At Bell, My Voice Is My Password**CS **Fred MacKenzie**, Sr. *Business Solutions Advisor, Bell Canada*  
**Charles Giordano**, *Associate Director, Bell Canada*

Bell Canada is the largest telecommunications services provider in Canada. It has rolled out a nationwide, customer-facing system, starting with residential wireline and wireless customers. By the start of 2008, Bell Canada had enrolled 500,000 customers. The company chose speaker verification for the following reasons: to secure the privacy of customer data; to make privacy more convenient; and to reduce the average length of call-center calls.

**ATTENDEE RECEPTION** ♦ On the 9th Floor**5:30 p.m. – 7:00 p.m.****Tuesday Sunrise Semester Discussions** ♦ 8:00 a.m. – 8:50 a.m.

Royale Room (6th floor)

**SUNRISE SEMESTER DISCUSSION 3****Speaker Identification and Verification**

DISCUSSION LEADER:

**Judith Markowitz**, President,  
*J. Markowitz, Consultants*

An open meeting of the VoiceXML Forum's Speaker Biometrics Committee, which is working on extending VoiceXML to include Speaker Identification and Verification (SIV). Anyone interested in SIV is welcome to attend. Discussion topics will include an update from the VoiceXML Forum's Biometric committee followed by a Q&A.

**SUNRISE SEMESTER DISCUSSION 4****It Ain't Shakespeare ... Or Is It?**

DISCUSSION LEADERS:

**Alexandra Auckland**, Senior VUI Designer, *Nuance Communications***Melanie Polkosky**, Human Factors Psychologist and  
*Consultant, IBM*

Like playwrights, VUI designers write dialogue that is meant to be spoken out loud. Yet, recent research reveals that less than 10% of designers in the field have an educational background in voice performance, acting, coaching, voice pathology, or pedagogy. In this lively session, we will share techniques about what to look for in auditioning talent, how to write dialogue that translates well to the spoken language, and how to effectively coach a voice actor so the resulting application becomes more effective, natural, and usable.

**SUNRISE SEMESTER DISCUSSION 5****W3C Multimodal Working Group**

DISCUSSION LEADER:

**Deborah Dahl**, Principal,  
*Conversational Technologies*

Increasingly powerful mobile devices, along with improvements in displays and speech technologies, are making possible innovative, compelling, and robust applications that allow users to combine speech, graphics, ink, and motion. Emerging standards for multimodal interaction support and simplify the development and deployment of these applications. Please join us for a discussion of current and planned work in the World Wide Web Consortium's Multimodal Interaction Working Group and learn how to get involved in the W3C standards process.

**AD**

## Keynote



### The Art of Deception: Are You in Danger of Being 'Conned'?

8:45 a.m. – 10:00 a.m. ♦ Broadway Ballroom

**Kevin Mitnick**, author, world-famous (former) hacker, & security consultant

As more businesses and consumers depend on speech technology, it's becoming increasingly important to protect your investments. With more than 15 years of experience in exploring computer security, Kevin Mitnick is a largely self-taught expert in exposing the vulnerabilities of complex operating systems and telecommunications devices. As the world's most famous (former) hacker, Mitnick has been the subject of countless news and magazine articles published throughout the world. Mitnick will share how hackers compromise your security and what you can do about it.

### TRACK A ♦ Soho Complex (7th Floor) MEETING BUSINESS GOALS WITH SPEECH TECHNOLOGY

#### Customer Satisfaction 2008

A301

10:45 a.m. – 11:30 a.m.

MODERATOR: **Tim Moynihan**, Vice President, Global Marketing & Sales Support, *Envox*

Today's consumers are increasingly sophisticated in their expectations for customer service from the organizations with which they do business and are increasingly willing to publicize negative experiences. This combination leads to a volatile marketplace in which organizations must protect their customers against poor user experiences to establish and maintain their competitive advantage. Experts in this session discuss how to realistically assess customer satisfaction and deliver a positive experience to every customer every time.

#### You Can't Hide From a Bad Experience

**Lynda Kate Smith**, VP, General Manager, Core Business Unit, *Nuance Communications*

Organizations can no longer hide from their customers' bad experiences. Expectations are higher than ever before, and with today's social media, the consumer's voice is louder and travels further. That's why you must ensure customers are satisfied with their increasingly automated and mobile interactions with your company. This presentation will talk about the shift of power from company to consumer. It's also designed to show the impact social media is having on customer care and the opportunity businesses have to make favorable impressions by leveraging the power of speech.

#### The Critical Importance of Caller Experience Analysis

**Michael Codini**, Chief Technical Officer and Co-Founder, *VoiceObjects*

The business success of automated voice services depends significantly on a well-founded understanding of how these services are used by customers. Modern tools for dialogue analysis allow business units to produce meaningful reports that provide a 360-degree view of customer interactions. These reports help call centers control and optimize applications and systems and are an essential part of achieving broad corporate objectives, including greater customer satisfaction, cost reductions, and increased rev-

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enue. The session will identify caller experience information that organizations must take into account.

### DTMF Versus Speech

A302

11:45 a.m. – 12:30 p.m.

MODERATOR: **Phil Shinn**, Principal Consultant, Voice Application Services, *Genesys Telecommunication Laboratories*

How should an organization decide between speech and touchtone IVR solutions? The thinking used to be that speech was an all-or-nothing decision, but increasingly, organizations are discovering that a speech-plus-touchtone solution may be the best fit for their IVR. Learn how to decide which features require speech, which may be well-served by touchtone, and how to create a smooth, cohesive user interface that includes both modalities.

#### Does Your Application Require Speech, Touchtone, or Both?

**Darla Tucker**, Principal, Global Consulting Services, *Intervoice*

Buyers, beware: You might not need a big, expensive speech application when a simple touch-tone application could be the perfect fit. Or perhaps you do need the new speech application, but with a twist. No matter, the perfect always requires a solid case and strategy for what's purchased and deployed. We'll explore what you must consider and how to determine what best suits the needs of your business and your callers.

#### Balancing Business Needs Versus Caller Needs When Migrating DTMF Applications

**Matt Whipple**, Principle Consultant, Self-Service Solutions, *Avaya*

DTMF applications are usually easier, faster, and cheaper to develop than speech applications. As waves of proprietary IVR systems and hardware platforms reach their end of life, they will need to be replaced. As a result, many businesses turn to vendors to replace those systems in a like-for-like fashion—an approach that might save time and money, but does it enhance customer loyalty and represent a service that meets caller needs? This presentation will explore a few DTMF-to-IVR application rewrites and how the same business needs could have been better addressed with speech.

## LUNCH BREAK

12:30 p.m. – 1:45 p.m.

### Security for Speech

A303

1:45 p.m. – 2:30 p.m.

MODERATOR: **Dan York**, Director of Emerging Communication Technology, *Voxeo*

How secure is your speech application? Organizations are now accustomed to dealing with security threats that arrive via email and web channels but are sometimes less familiar with the threats presented by the use of speech technologies. In this session you will learn how to identify emerging threats to the speech channel and develop strategies to effectively protect your data, customers, and organization.

#### Improving Security for Telephone-Based Self-Service Interactions

**Steven Cawn**, Sales Leader, *IBM*

This session will cover current capabilities and market trends related to improving security for self-service environments. We will discuss such topics as federal regulations that are driving deployments (such as multifactor authentication), current technology capabilities, and industry trends. Case studies will highlight uses of security technologies and considerations for production deployments.

#### VoIP Phishing: The Next Threat to IVRs

**Kris Herrin**, Chief Security Officer, *Heartland Payment Services*

Identity theft costs us an estimate \$53 billion annually, and VoIP phishing is simply the latest assault by hackers to steal personal information. It exploits the trust people have in IVRs, toll-free numbers, and strong brands. In this presentation, we will witness a live demonstration of VoIP phishing, get under the hood to see exactly how hackers accomplish it, and explain what companies should do to reduce the risk to their customers and, ultimately, their bottom lines.

**The Crystal Ball****A304****2:45 p.m. – 3:45 p.m.**MODERATOR: **Ron Owens**, Director, Multimedia Applications PSO, Nortel  
PANELISTS:**Daniel Hong**, Lead Analyst, Datamonitor**Judith Markowitz**, President, J. Markowitz, Consultants**Bill Meisel**, President, TMA Associates

Experts in this panel will gaze into the crystal ball and give us their predictions for new developments in speech technologies. Join us for a spirited discussion of upcoming trends in speech recognition, speaker biometrics, and speech analytics. This session will prepare you for what's next in the world of speech and give you hints on how to be one step ahead of the curve in making the most of speech technologies.

TRACK B ♦ Empire Complex (7th Floor)

**VUI DESIGN PRINCIPLES & TECHNIQUES****Making VUIs Even Better****B301****10:45 a.m. – 11:30 a.m.**MODERATOR: **Fran McTernan**, Speech Operations Lead, Nortel

This session brings together two different but very valuable topics in VUI design. In the first presentation, we explore yes/no questions—an extremely common but troublesome element in VUI design. The second presentation changes gears to discuss the ways in which VUI design must change to meet the needs of internal-facing VUIs, meant for users within an organization, versus more common, external-facing, public VUIs. These presentations ask specific questions and give targeted answers that you can apply in your VUI.

**A Thousand Ways to Yes: Robust Dialogue Design to Recognize Responses to Yes/No Questions****Patrick Nguyen**, Chief Technology Officer, Voxify

A large variety of yes/no questions are fundamental in today's speech applications. Callers offer widely differing responses, which can be a challenge to commonly used, generic yes/no grammars. In this session you will learn about research into the types of caller responses, implications for dialogue design, and how to build robust templates that can handle the variation.

**Does One Size Fit All?****Bob Cooper**, Chief Architect, Voice Portal, Avaya

Are there a different set of rules that should be followed for a private-facing application versus a public-facing one? This discussion will focus on lessons learned in designing a personalized, private-facing application, detailing where its design overlaps with a public-facing app and where the needs of private users are clearly different. You will also hear how presence and multimodality may affect where private-facing applications could be headed.

**Designing for Spanish****B302****11:45 a.m. – 12:30 p.m.**MODERATOR: **Melanie Polkosky**, Human Factors Psychologist and Consultant, IBM

In too many U.S.-based speech projects, the Spanish-language portion of the project is an afterthought. Organizations recognize the need to offer telephony services in Spanish for their growing Hispanic customer base, but do not always devote the resources and attention necessary to ensure a positive and productive experience for these customers. The experts in this session will present proactive strategies that ensure your Spanish voice interaction meets the unique needs of Hispanic customers, offering them a compelling reason to use automation.

**Para Continuar en Espanol: Best Practices for Offering Spanish in U.S. Telephony Applications****Sondra Ahlen**, Principal VUI Consultant/Owner, SAVIC

A caller's initial interaction with a multilingual application is in choosing the language for communicating with the system, typically English or Spanish. The presentation of language choice can affect system performance, customer satisfaction, and company image. Diverse issues, such as the polit-

ical climate, immigration controversies, and the quality of Spanish applications, affect companies' willingness to offer Spanish, as well as callers' willingness to use it. This session presents data from existing applications that illustrate the need for improvement.

**Beyond Spanish in the U.S.: Acculturated Hispanics and the Use of Spanglish****Jose Elizondo**, Professional Services Manager, Multilingual VUI Design, Nuance Communications

Many companies offer customers the choice of using Spanish but do not understand the issue of "Spanglish." Spanish speakers in the U.S. often mix English and Spanish words in the same sentence, or mix languages to create new words. This has deep implications for the design of grammars and user dictionaries, as well as the use of parallel grammars. This session will propose methods for understanding and addressing these issues to create a successful Spanish system.

**LUNCH BREAK****12:30 p.m. – 1:45 p.m.****Happy Together? Speech and Touchtone****B303****1:45 p.m. – 2:30 p.m.**MODERATOR: **Matt Whipple**, Principal Consultant, Self-Service Solutions, Avaya

Can one user interface encompass both speech and touchtone input in an efficient, effective, and satisfying interaction? This session explores this question and offers insight into the ways speech and touchtone can work in concert. Learn techniques for writing prompts and call flows that make sense across modalities, and understand that data supports these techniques. This session will teach you how to use both speech and touchtone to their best advantage, allowing your organization to meet its business objectives.

**The Best of Both Worlds: Speech and Touchtone in Harmony****David Attwater**, Senior Scientist, Enterprise Integration Group

This session presents research on user interfaces that combine the stability of touchtone with the elegance of speech recognition. With results from real-world testing, you'll learn how modality preference varies among callers, by context for an individual caller, and even on a turn-by-turn basis in the dialogue. We present a behaviorist approach to show how interfaces can rapidly adapt and with no overhead in terms of task completion time.

**What's Up With "Press or Say"?****Phil Shinn**, Principal Consultant, Voice Application Services, Genesys Telecommunication Laboratories

This presentation reviews the pros and cons of designing and deploying a "press or say" speech application. While some believe this is an easy way to transition from DTMF to speech applications in the enterprise, others consider it a bad idea for a variety of reasons. This session will detail recent findings to help you make the best choice.

**The Ultimate VUI Showdown****B304****2:45 p.m. – 3:45 p.m.**MODERATOR: **Gregory Simsar**, Vice President, Speech Services, Syntellect

PANELISTS:

**Bruce Balentine**, EVP and Chief Scientist, Enterprise Integration Group**Ahmed Bouzid**, Senior Product Manager, Angel.com**Wally Brill**, SVP of Creative Services, VoxGen Group**Lizanne Kaiser**, Customer Experience Designer, Genesys Telecommunication Laboratories**Peter Krogh**, Speech Mechanic, SpeechCycle**Elizabeth Strand**, Director of User Experience Design, Tellme, a subsidiary of Microsoft

What are the hot topics in VUI today? Where do we agree and where are there still controversies? Join us for the third annual panel debate on the state of the art in VUI design, refereed again this year by Greg Simsar. Come with questions for this year's panel of VUI practitioners and be ready to



share your 2 cents in spirited discussions of where VUI stands as a profession and discipline.

**TRACK C ♦ Majestic Complex (6th Floor)**  
**TODAY'S SPEECH TECHNOLOGIES**

**Video and Speech**

**10:45 a.m. – 11:30 a.m.**

**MODERATOR: Matthew Yuschik, Human Factors Specialist, Multichannel Self Care, Convergys**

Around the world, consumers have access to live, two-way video using 3G cell phones, broadband/DSL videophones, and video telephone software on their computers. Speech-enabled self-service applications can become even more effective by displaying a visual display or video at the same time they use the speech application. The phone display may present menus, pictures of products, live video clips, and video commercials. This session discusses how to harness video in VXML to quickly create rich voice and video applications, as well as how to author multimodal applications for these devices.

**Voice, Video and VXML: Add Visual Va-Va-Voom to Your VUI!**

**Andrew Fuller, CTO, Voxpilot**

With the increasing proliferation of fixed and mobile videophones and media-friendly next-generation networks such as IMS coming closer to a reality, the market waits for 1-D audio services to blossom into interactive, personable, engaging multimedia interfaces. In this presentation we show how to effectively harness video-in-VXML to quickly create rich voice and video applications and discuss some considerations when implementing a wide range of new services such as video mail, adult services, video dating, TV-on-mobile, video contact centers, etc.

**Techniques for Developing Speech  
 Plus Video Self-Service Applications**

**Valentine Matula, Director Multimedia Research, Avaya Labs**

Around the world consumers have access to live two-way video using 3G cell phones, broadband/DSL videophones, and video telephone software

**C301**

on their personal computers. This talk will show how speech-enabled self-service applications can become even more effective by displaying to a caller a visual display or video at the same time that they use the speech application menus, pictures of products, live video clips, and video commercials. Specific application development techniques that leverage speech and visuals together will be presented, along with sample speech-enabled voice-plus-video applications for universities, travel, retail, and home health-care. The process of application authoring will be part of the talk.

**Speech in Automotive**

**11:45 a.m. – 12:30 p.m.**

**MODERATOR: Paolo Baggia, Director of International Standards, Loquendo**

Speech technology is increasingly being used in the automobile. The first case study in this session will show how a speech-enabled, in-vehicle device can read email and text messages aloud and enable users to instantly respond by voice. This session's second case study will reveal how customers can use their mobile phones to retrieve location and current real-time parking availability at parking facilities; make parking reservations at a facility; pay for parking; and provision a new user account and provide outbound informational alerts.

**Success Story: iLANE, the Voice-Enabled Travel Companion**

**CS Ben Miners, Product Manager, Intelligent Mechatronic Systems**

A new, state-of-the-art, speech-enabled in-vehicle device exists that not only reads email and text messages aloud, but enables you to instantly respond to them by voice. Generated speech notifies drivers with timely information about phone calls, calendar appointments, and other potentially distracting mobile phone events. The following challenges will be covered: In-vehicle voice interfaces require extremely careful design and focus around the user's primary task—driving; and flexibility, personalization, and appropriateness of dialogue content are important in a VUI used on a daily basis.

**C302**



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IN 2008, PLEASE  
 EYES ON CHINA, EARS ON iFLY.

**iFLYTEK—**  
**Predominant speech technology solution provider**

☆ **Leader in the Chinese Speech Industry with 630+ employees**  
**and 15 branches all over China**

☆ **iFLYTEK occupies 70% of the speech technology market,**  
**we have 8000+ application cases and there're millions of licenses**  
**running everyday in China.**



**Where Does Speech Fit Into Location-Based Services?****CCS Christian McCarrick**, CTO, ParkingCarma, Inc.

ParkingCarma needed a scalable and safe way to enable its customers to access its services while driving. Companies should be able to perform the following functions in as cost-effective and convenient manner possible through a speech enabled application over a mobile phone: search for and get the location and current real-time parking availability at parking facilities, make a reservation for parking at a facility, pay for parking at a facility, and provision a new user account and provide outbound informational alerts. The system also had to be designed to take into account the harsh noise environment inside of cars and parking facilities.

**LUNCH BREAK****12:30 p.m. – 1:45 p.m.****Multimodal Standards and Applications****C303****1:45 p.m. – 2:30 p.m.**MODERATOR: **Andrew Fuller**, CTO, Voxpilot

This presentation will showcase standards-based multimodal applications developed by member companies of the W3C Multimodal Interaction Working Group. It will also demonstrate some laboratory applications that illustrate the principles of the W3C Multimodal Architecture and a deployed healthcare application that enables users to type, speak, and scribble on their mobile devices to record vital readings, highlight regions of interest on images, and submit them wirelessly.

**Multimodal Applications Using W3C Standards****Deborah Dahl**, Principal, Conversational Technologies**Ingmar Kliche**, Project Manager, T-Systems Enterprise Services GmbH

This presentation will showcase standards-based multimodal applications that illustrate the principles of the W3C Multimodal Architecture and how the emerging multimodal standards being developed by the group can be applied to integrate speech and GUI technologies and simplify the creation of interoperable multimodal applications.

**Mobile Multimodal Patient Monitoring****Raj Tumuluri**, President, Openstream

Openstream has built a suite of healthcare applications incorporating its multimodal SmartCare technology for the use of care-givers, physicians, and patients who are self-monitoring. This healthcare application combines speech and visual images, allowing users to type, speak, and scribble on their mobile devices to record vital readings, highlight regions of interest on images, and submit them wirelessly. The system stores the images, overlay —gestures, and spoken comments — and plays them upon retrieval, allowing other experts to review/add their comments and recommendations in a similar way.

**Developing and Testing Multimodal Applications****C304****2:45 p.m. – 3:45 p.m.**MODERATOR: **Hamilton Yu**, Manager of Client and Product Delivery, Tellme, a division of Microsoft

There are several different strategies for designing multimodal dialogues for use on handsets. This session will discuss the pros and cons for each strategy and how to determine the best strategy for your application. Other topics of discussion include how to conduct usability studies, a critical step in improving an application's ease of use, how to set up a test environment, and some of the special usability concerns a multimodal application presents.

**Presentation Links**

Get access to many PowerPoint presentations and websites used in conjunction with the SpeechTEK 2008 sessions! Links will be posted on the SpeechTEK.com website soon after the conference.

**Multimodal Dialogue Strategies****Dave Pelland**, Director, Design Collaborative, Intervoice

There are several different strategies for designing multimodal dialogues for use on the handset. Some appear to be less multimodal and more multimedia while others achieve true multimodal interaction. This talk will present different strategies along with the pros and cons for each and how to determine which strategy might be the right one for your application.

**Conducting and Evaluating a Multimodal Usability Test****Cliff McEnery**, UI Designer, Nuance Communications

As multimodal applications become more widely available, planning for and conducting usability studies are critical steps for improving the ease-of-use of these applications. This presentation will discuss strategies for testing the usability of multimodal applications, including how to set up the test environment and some of the special usability concerns a multimodal application presents. Lessons learned from an on-site multimodal usability study will be included as well.

**TRACK D** ♦ Shubert Complex (6th Floor)**DEVELOPMENT AND DEPLOYMENT****Speech in Financial Services/Insurance****D301****10:45 a.m. – 11:30 a.m.**MODERATOR: **Rob Marchand**, Senior Director, Product Management, Genesys Telecommunication Laboratories

Financial services and insurance companies are turning to speech technology for help in meeting stringent security, privacy, and compliance demands. The first case study will show how a financial services company uses a real-time speech solution that recognizes callers who typically call for specific reasons and proactively engages in data-driven dialogues to offer information they usually request. The second case study will highlight how an insurance company provides members with prompt access to information using speech technology, which helped to cut costs, reduce call volumes, and maintain a high level of customer satisfaction.

**State-of-the Art Call Center****CCS Brent Sparks**, Vice President, Self-Service Channels, Wachovia Bank

Wachovia uses a real-time, rules-based, customer-segment-driven decisioning solution that recognizes callers who typically call for specific reasons and proactively engages in data-driven dialogues to offer information they usually request. This approach gives the customer information faster and bolsters IVR containment while simultaneously improving the customer experience. This session will recap the approach, solution, and current results, allowing attendees to learn more about this data-driven decisioning technology and how the IVR can come full circle in providing personal treatment.

**Leveraging Speech Technology in Healthcare****CCS Remus Siclovan**, Senior Systems Analyst, Health Net

Health Net realized cost savings between \$2.3 million and \$4.4 million annually using speech technology to automate processes, reduce call volumes, and maintain a high level of customer satisfaction. This session will discuss how speech technology can help healthcare providers balance cost effectiveness and service goals while providing members with prompt access to information and how to enhance security, privacy, and HIPAA compliance using voiceprint identification.

**Testing****D302****11:45 a.m. – 12:30 p.m.**MODERATOR: **Emmett Coin**, Speech Scientist, ejTalk

This session addresses two important testing problems. The first is capacity testing. Most businesses have peak periods of high activity throughout the year. Learn how to define and implement testing that will help mitigate the risk of implementing a system that is not ready for peak-period deployment. The second is using open source software for testing. This session will review an integrated, open standards application tuning-based approach based on Eclipse. Application reporting, performance application logs, tun-

ing components, as well as how the latest approaches to integrated tuning tools complement the application tuning process will also be covered.

### Performance Testing for Peak Periods

**Jim Jenkins**, CEO, IQ Services

Most businesses have peak periods of high activity throughout the year. Making sure that your contact center solution infrastructure and related technologies will work as required under these peak periods is a challenge. In this session the attendees will learn how to define and implement testing that will help mitigate the risk of implementing a system that is not ready for peak period deployment.

### Consolidate and Correlate: Integrated Application Design and Tuning

**Judi Halperin**, Speech Engineer, Contact Center Practice, Self Service Solutions, Avaya

**Dennis Jakobsen**, MTS, Avaya

Tuning is an absolutely critical step in the success of any speech implementation. Today speech application developers use various application development packages but often rely on separate and costly commercial tools or tool scripts for application tuning. This session will review an integrated open standards-based approach based on Eclipse, which simplifies direct correlation between the design of the application and its real-world performance. Application reporting, performance application logs, tuning components, as well as how the latest approaches to integrated tuning tools complement the application tuning process will be covered.

### LUNCH BREAK

12:30 p.m. – 1:45 p.m.

### Speech in Customer Service

1:45 p.m. – 2:30 p.m.

MODERATOR: **Paolo Baggia**, Director of International Standards, Loquendo

Speech applications are a driving force in defining the customer care experience. Designing and deploying automated speech solutions from the customer's point of view is a critical factor for competitive advantage. Learn the value from using speech to optimize your customer interactions to drive higher business performance, increase automation rates, and improve your customer satisfaction. This session will show the value of understanding your speech applications and delivering a rewarding customer experience.

### Delivering High-Speed Customer Service

**Chris Weeks**, Division Vice President, Customer Care, Comcast

Delivering customer service in the most effective and efficient way is necessary for a successful customer service platform. Developing applications

that identify call types, patterns, and repeat customers drives customer calls to quick resolutions. This session will explore using speech application, customer surveys, and caller analysis to understand the voice of the customer and meeting customer needs in a high-speed environment.

### Self-Service Using Telephony-Based Order Taking

**Richard Grant**, CTO, OrderCatcher LLC

OrderCatcher is a cost-effective self-service speech application for Chinese and Pizza take-out. Learn why customers chose speech self-service, the business problem they wanted speech self-service to solve, how they developed their requirements for the speech self-service application, and what advice they would give to a company considering speech self-service to take their fast-food orders over the phone.

### Tuning Tips

2:45 p.m. – 3:45 p.m.

MODERATOR: **Emmett Coin**, Speech Scientist, ejTalk

Tuning a speech recognition application results in a more accurate solution that can improve the caller experience. The process involves using prompt, grammar, call flow, and caller data to help developers make the needed changes. While nearly 40%–50% of total development and deployment time is often spent on application tuning, there are techniques to create a repeatable process that reduces time and gives the desired results. Two experts will present their favorite tips and techniques for effectively tuning speech applications.

### Tuning Speech Applications

**Yves Normandin**, President, Nü Echo

With the help of numerous real-world examples, this session will present a systematic approach to the task of tuning speech applications using field-collected utterances. Areas covered by the tutorial include effective grammar development and maintenance, the process of tuning grammars using field utterances, key metrics to measure grammar performance, techniques to efficiently manage out-of-grammar utterances, and tuning confidence scores and setting confidence thresholds.

### Speech Tuning, Practical Tips to Improve Performance

**Stephen Keller**, Project Manager, LumenVox

While nearly 40%–50% of total development and deployment time is often spent on application tuning, there are techniques to create a repeatable process that reduces time and gives the desired results. This presentation will address how to effectively tune speech applications by presenting practical tips and proven techniques.

D304

D303

## Wednesday Sunrise Semester Discussions ♦ 8:00 a.m. – 8:40 a.m.

Royale Room (6th floor)

### SUNRISE SEMESTER DISCUSSION 6

#### Speech Development Teams

DISCUSSION LEADER:

**Nava Shaked**, CRM and CC Leader, IBM

Join us for an overview of the differences between a traditional software development team and a speech application development team. Possible discussion topics will include the following:

- How to staff a speech application development team (e.g., hire consultants temporarily, hire new employees, or retrain existing employees)
- How to improve communication among team members
- What to do when projects are behind schedule

### SUNRISE SEMESTER DISCUSSION 7

#### Project & Perfect: Using Success Rate Projection Techniques to Make Better Tuning Decisions

DISCUSSION LEADERS:

**Louise Tranter**, Lead Speech Applications & **Sarah Turney**, Senior Speech Applications Specialist, Fluency Voice Technology

A customer concerned that their application was not performing drove us to explore new ways of analyzing system performance and conveying the results to our customers.

### SUNRISE SEMESTER DISCUSSION 8

#### Analytics

DISCUSSION LEADER:

**Aphrodite Brinsmead**, Associate Analyst, Datamonitor

Datamonitor developed a method to help determine where to focus further work by projecting the likely impact of changes on success rates in a format that is clear to understand for our customers. The method also allows us to highlight issues with the different aspects of the application in its live environment, including recognition rates, data quality and access and customer behavior. We have been able to use this with the customer to ensure that the focus of efforts on both sides is targeted at where it can be most productive.

**AD**



This year marks our first SpeechTEK Labs, in which attendees can sample the latest speech technology products, talk to developers, and speak openly to our expert panel of judges about the technology. These sessions, which take place in the Exhibit Hall on Tuesday and Wednesday, will provide objective evaluations of new speech technology and show how speech is breaking new ground in various industries. Attendees will have the opportunity to evaluate speech products in three categories: multimodal applications, speech tools, and voice-activated games. As an added benefit, after the lab, the judges will issue ratings of the tools to provide further guidance.

## TUESDAY, AUGUST 19

10:45 a.m. – 12:30 p.m.

### TOOLS FOR SPEECH APPLICATIONS

**MODERATOR:** *Moshe Yudkowsky, President, Disaggregate Consulting*

What tools are available for speech technology application developers? Developers at all skill levels can now select from a variety of competing and complementary tools for the entire development process, from initial testing through coding through final testing. Visit this lab session to see what's available and to speak one-on-one with the tool developers.

#### Ajax Weaver

VoiceXML Orchestrator is the very first web-based drag-and-drop environment that allows end users to build self-service IVR applications inside Firefox and IE. It offers a sleek Ajax Weaver interface and WYSIWYG capabilities to visually layout call flows in a manner similar to creating Visio diagrams. No software install, no downloads, no plugins.

#### Avaya Dialog Designer

The Avaya Dialog Designer is an open standards-based Integrated Development Environment (IDE) for Avaya Voice Portal and Avaya Interactive Response. Dialog Designer accelerates time to market for businesses seeking higher automation and closure rates, turns a faster return on investment for Avaya Self Services solutions, and delivers superior customer satisfaction at a lower investment level. Based on the widely accepted Eclipse.org development framework for fit in information technology (IT) departments, Dialog Designer offers web application developers a reusable drag-and-drop environment for development and maintenance of speech and touch-tone IVR applications.

#### Cisco Unified Call Studio 7.0

Cisco Unified Call Studio 7.0 is an integrated development environment (IDE) for voice self-service applications that allows you to build, debug, manage, and document sophisticated speech-enabled telephone self-service applications for Cisco and non-Cisco VoiceXML platforms.

#### Envox Communications Development Platform

This is an advanced graphical development environment that reduces IVR development and deployment time by 50% or more compared to traditional graphical development environments. Standardize on the Envox Communications Development Platform to quickly create multichannel IVR and com-

munications solutions featuring voice, video, web, fax and email that easily integrate with a wide range of databases, legacy, and back-office systems.

#### Loquendo TTS Director: The Next Generation Suite of Authoring Tools for Speech Synthesis

It is a complete authoring tool for creating, testing and refining voice prompts. It will simplify the creation of effective prompts for any of your applications in a few simple steps, but it also facilitates the use of our innovative features, such as emotional TTS, the reading style definition, as well as the new voices creation and the user-driven unit selection tools.

#### LumenVox Speech Tuner

The LumenVox Speech Tuner is designed to perform tuning and transcription, as well as instant parameter, grammar, and version upgrade testing of any speech recognition application. It reduces the work of your post-deployment application revisions and allows you to bring tuning in-house, avoiding costly professional service fees.

#### VocaLabs

VocaLabs will be demonstrating its intuitive real-time usability survey reports, which allow VUI designers and clients to quickly discover ways to improve application designs and increase user acceptance.

#### Voiyager

Come and see firsthand how Voiyager is revolutionizing the VoiceXML development lifecycle. Learn how Voiyager can automatically explore, test, and validate your service applications in a more efficient and time-saving manner. No other testing methodologies or products provide enterprises with the validation that deployed applications are error-free.

#### Voxeo

#### West Interactive

1:45 p.m. – 3:30 p.m.

### VOICE-ACTIVATED GAMES

**MODERATOR:** *David Thomson, CTO, SpeechPhone*

See some of the newest titles in voice-activated video games, such as Tom Clancy's End War. Visitors will get a chance to try the games and get a firsthand look at how speech technology lets players give verbal commands to virtual teammates that go beyond the limitations of the game controller.

## WEDNESDAY, AUGUST 20

10:45 a.m. – 12:30 p.m.

### MULTIMODAL APPLICATION LAB

**MODERATOR:** *Deborah Dahl, Principal, Conversational Technologies*

See how voice can be combined with other input modalities to dramatically enhance the capabilities and usability of applications. This is your chance to see the future of speech applications and learn about the effectiveness of real multimodal applications.

#### Avaya

#### IQ Services Integrated Multichannel Testing

Contact center and unified communications solutions allow customers to make contact via different devices. Is your contact center infrastructure ready to support these diverse communications? Integrated Multichannel Testing from IQ Services gives you confidence the critical elements of your solution work separately and together to deliver a better customer experience.

#### Intervoice Voice Portal and Wireless Carriers' 3G Networks

After receiving a flight cancellation SMS or email alert, an airline passenger may use his/her voice and touch screen interchangeably to reserve a flight, including pricing options and seat selection. If the passenger requires more information, he/she can touch a button or say "Agent" to transfer to a Contact Center Agent.

#### Loquendo: Voice Multimodal Application Framework—The Next Generation for Multimodal Voice Interaction

#### VoiceVerified

Our demo center is a CTI integrated experience so participants are on the internet and the phone at the same time and can see the screen change when they are authenticated. The IVR stand-alone demo is a very "hands on" demo that is sure to get a "wow" from the participants.

**AD**

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## Evening Receptions

SpeechTEK invites attendees with a Networking Pass or above to a Welcome Reception held Monday evening in the Exhibit Hall from 5:00 p.m. – 7:00 p.m. sponsored by Angel.com as well as the Tuesday evening reception from 5:30 p.m. – 7:00 p.m. on the 9th floor. Mingle with exhibitors, speakers, and conference attendees while enjoying a glass of wine and light hors d'oeuvres.



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**angel.com**  
Smarter voice applications

Welcome back, Jane, would you like to update your customer support ticket?



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## Sunrise Semester Discussions

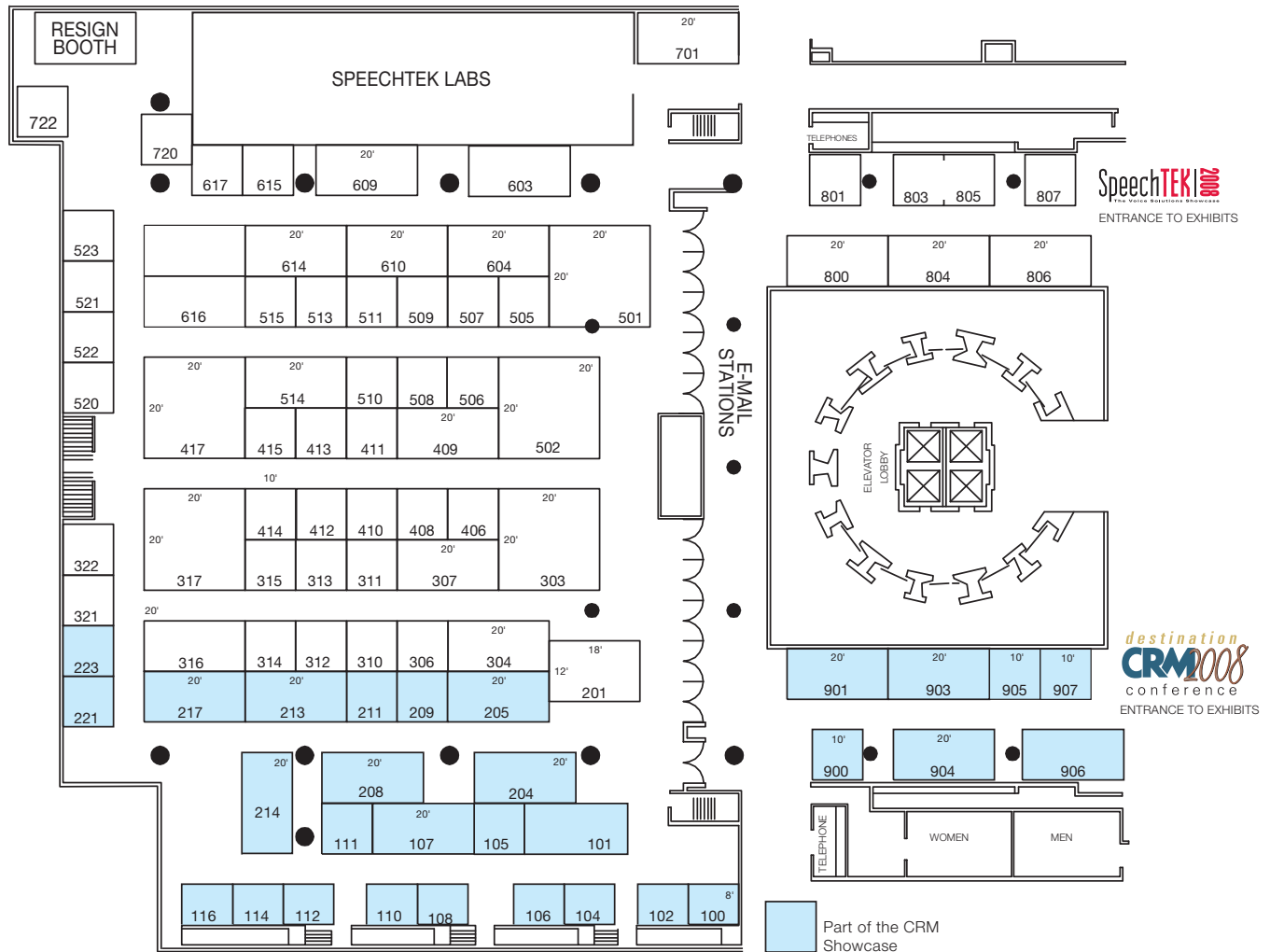
SpeechTEK will host early morning discussions on Monday, Tuesday, and Wednesday in the Royale Room (6th floor) for business professionals, project leaders, designers, and developers to openly talk about a variety of topics. This is a great opportunity for attendees to network, discuss challenges, and share ideas with peers and speech technology professionals.



**AD**

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**Booth 506**

Acclaim Telecom is a full-service provider of Microsoft OCS 2007 Speech Server products. We specialize in the analysis, design and development of Microsoft speech applications using current tools and technologies. From hosting your existing Microsoft speech application to implementing a new design from the ground up, Acclaim Telecom is always the right choice.

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**Booth 520**

Accuvoice is a platinum Avaya developer with 17 years of self-service and an IBM and Nuance NLSR. We are a nationwide government-certified, women's business entity (WBE) and offer business case planning support for cost/revenue, ROI, and funding scheduling. Visit our booth or come to session, D204, "Speech in Government/Utilities: Developing Call Center Applications," featuring the city of San Francisco, to learn more.

**Aculab**

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**Booth 303**

Aculab offers developers and service providers a wide range of hardware and software for integration into high-performance speech-enabled communications solutions such as voice portals and outbound IVR. Scalable media processing resources enable the production of cost-effective enterprise solutions for use in both PSTN and IP environments.

**Agnitio**

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**Booth 315**

Agnitio, the worldwide leader in voice biometrics for public security, has suc-

cessfully adapted its robust technology to provide the most sophisticated corporate authentication product. Agnitio's technology is currently deployed in over 20 countries. KIVOX, Agnitio's corporate flagship product, can be adapted very easily into existing voice and technology infrastructures. Unique capabilities include performing voice verification in any language and mixing different voice channels.

**AjaxWeaver**

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AjaxWeaver is the pioneer and leader in creating web-based drag-and-drop Ajax IDE for VoiceXML applications. Our flagship product, VXML Orchestrator, is the very first web-based drag-and-drop environment that allows end users to build self-service dynamic IVR applications inside web browsers. The Orchestrator offers sleek Ajax interface and WYSIWYG capabilities to visually layout call flows in a manner very similar to creating Visio diagrams. No software install, No downloads, No plugins.

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FAX: 703-770-1321  
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**Booth 806**

Angel.com combines powerful business voice technologies with simplified implementation and management. Our open, software-as-a-service platform facilitates information-driven, personalized communications and transactions, improving business efficiency and enhancing caller satisfaction. More than 1,600 customers use Angel.com to more efficiently and cost-effectively build and manage call centers and IVR solutions such as phone surveys, payment lines, and more.

**Aspect Software**

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**Booth 415**

Aspect Software, Inc. founded the contact center industry and is now the world's largest company focused solely on unified communications for the contact center. Our all-in-one, IT-ready solutions help two-thirds of the FORTUNE Global 100 and a variety of

small and medium enterprises to communications-enable their customer service, collections and sales & tele-marketing business processes.

**Autonomy etalk**

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www.etal.com

**Booth 414**

Autonomy etalk delivers enterprise solutions for multichannel interaction analysis, real-time information assistance, contact center performance, and compliance management. By providing integrated tools for recording, archiving, analyzing, and retrieving critical interactions, Autonomy etalk helps organizations meet regulatory compliance, manage enterprise security and risk, enhance customer support, and uncover valuable business intelligence for strategic operations.

**Avaya**

211 Mount Airy Road  
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www.avaya.com

**Booth 312**

Deliver exceptional value to your business and customers with video and voice-enabled self-service solutions. Experience the ease of application creation through Avaya Dialog Designer, and leverage the resources of the Avaya DevConnect developer program to jump-start your speech-enabled application efforts. Avaya is a global leader in communication systems, applications and services, serving more than 1 million customers from small businesses up to more than 90% of FORTUNE 500 companies.

**Cepstral**

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PH: 412-432-0400  
www.voiceforge.com/demo

**Booth 303**

Cepstral specializes in text-to-speech and offers the world's largest catalog of English voices. Cepstral TTS engines power embedded, desktop and server markets. NEW!! VoiceForge — a hosted (SaaS) voice platform delivering on-demand audio for telephony, media sites, virtual worlds, consumer Internet devices, and web applications. "Fun" character voices available at www.voiceforge.com/demo.

**Cisco**

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**Booth 610**

Cisco is the world leader in IP-based contact center solutions for businesses of all sizes. The Cisco Unified Customer Contact Solutions portfolio includes both time-division multiplexing (TDM)- and IP-based voice and video self- and assisted-service solutions for large and midsize contact centers. Cisco's self-service solutions, including Cisco Unified Customer Voice Portal (CVP), offer a comprehensive set of natural-language voice self-service capabilities to automate incoming customer inquiries and deliver intelligent, personalized self-service over the phone, enabling customers to efficiently and enjoyably retrieve the information they need from the contact center.

**ClickFox**

3445 Peachtree Road, Suite 1250  
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www.clickfox.com

**Booth 609**

ClickFox is the only solution that delivers true customer experience analytics behavior, enabling organizations to see how their customers really interact across all touch points, such as IVR, ACD, web, chat, email, CRM, agents, point of sale systems and interactive kiosks. ClickFox uncovers opportunities for extending automation, cost-savings and increasing revenue. For more information, visit our website.

**Convergys**

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**Booth 304**

Convergys is a global leader in relationship management. We provide solutions that drive more value from the relationships our clients have with their customers and employees. Convergys turns these everyday interactions into a source of profit and strategic advantage for our clients. For 25 years, our unique combination of domain expertise, operational excellence, and innovative technologies has delivered process improvement and actionable business insight to clients that now span more than 70 countries



and 35 languages. Convergys is a member of the S&P 500 and has been voted a Fortune Most Admired Company for 7 consecutive years. We have approximately 75,000 employees in 84 customer contact centers and other facilities in the U.S., Canada, Latin America, Europe, the Middle East, and Asia, and our global headquarters in Cincinnati, Ohio. For more information, visit our website.



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PH: 212-251-0608  
FAX: 212-779-1152  
[www.destinationcrm2008.com](http://www.destinationcrm2008.com)

### Booth 317

CRM magazine incorporates vital information that will help you benefit from the experience of other companies and ensure that your company becomes a CRM success story. The magazine is FREE to qualified subscribers at the Web site.

## EMPIRIX

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FAX: 781-266-3201  
[www.empirix.com](http://www.empirix.com)

### Booth 313

Empirix provides the only suite of automated testing and monitoring solutions designed specifically for contact centers. By covering the lifecycle from pre-deployment testing to customer experience monitoring, contact centers can identify problems before agents and callers are affected. The net result: reduced customer churn, lower operating costs and improved customer loyalty.



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FAX: 508-366-0009  
[www.envox.com](http://www.envox.com)

### Booth 511

Envox Worldwide is a leading global provider of IP-based voice self-service and contact center solutions. The company's standards-based software solutions dramatically reduce customer service costs, optimize contact center performance and improve cus-

tomers satisfaction. More than 1.25 million ports of Envov's hosted and premise-based IVR solutions have been deployed globally and more than 1 million contact center agents benefit from the intelligent routing, screen pop and call monitoring functionality provided by Envov's award-winning CTI software. Envov's development tools and software platforms are also used to streamline enterprisewide communications through unified communications solutions and to generate new revenue streams for service providers.

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### Booth 411

First Data powers the global economy by making it easy, fast and secure for people and businesses around the world to buy goods and services using virtually any form of payment. First Data's Voice Services group powers automated customer self-service by developing and managing high-usage inbound and outbound voice applications on our state-of-the-art hosted platform. Put First Data's intelligence to work for your business.



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AN ALCATEL-LUCENT COMPANY

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Genesys, an Alcatel-Lucent company, is 100% focused on software for customer interactions. Genesys provides an integrated software suite for dynamic environments, automatically adjusting to balance corporate resources, marketing goals, and customer needs. With 3,300 enterprise customers in 80 countries, Genesys directs more than 100 million customer interactions every day. For more information, visit our website.

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[www.gmvoices.com](http://www.gmvoices.com)

### Booth 307

GM Voices delivers professional recorded voices for all applications and languages with consistent quality at economical rates. On average, we deliver over 40,000 audio files a month in over 70 languages. Combined with our persona development, we provide a consistent voice brand throughout your enterprise.

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[www.goldsys.com](http://www.goldsys.com)

### Booth 410

Gold Systems develops and deploys voice-driven communications solutions utilizing IVR, text-to-speech and speech recognition. Our offerings include implementing unified communications and messaging telephony interfaces, customized contact center solutions, and password management for telephone-based self-service. Gold Systems is a top-tier partner to leading speech and messaging vendors, including Microsoft, Avaya, and Nuance.



## IBM

294 Route 100  
Somers, NY 10589  
PH: 914-766-1553  
[www.ibm.com](http://www.ibm.com)

### Booth 201

IBM Speech Solutions include a broad range of software and services with a strong business partner ecosystem. Offering IBM WebSphere enterprise speech solutions, Embedded ViaVoice for automotive telematics and mobile devices, IBM Business Consulting Services dedicated to transforming contact centers, and 40 years of research, including more than 2,400 speech patents.



## iFLYTEK

iFLY Mansion

HuangShan Road No. 616  
Hefei, Anhui 230009 China  
PH: +86 551 5397815  
FAX: +86 551 5311801  
[www.iflytek.com/english](http://www.iflytek.com/english)

### Booth 523

iFLYTEK is the leading speech technology solution provider in China. We have a 70% market share in the Chinese speech technology industry. The company owns speech synthesis, speech recognition, oral language assessment and many other global leading technologies. We can offer Chinese/English language solutions for the desktop, platform and embedded application environment. Appointed by the Ministry of Information Industry of China, iFLYTEK is now leading the work to set up the Chinese speech technology standard.

## Inference Communications

Unit 1

174 High Street  
Ashburton, Victoria 3147 Australia  
PH: 03 8102 9352  
FAX: 03 9571 6904  
[www.inferencecommunications.com](http://www.inferencecommunications.com)

### Booth 522

Inference Communications is a specialist natural language speech recognition technology and solutions company. Inference's offerings include a wide range of pre-packaged speech solutions that can be customized, managed and maintained by the customer via a simple web interface. All solutions are underpinned by Inference's award winning grammatical inference technology.



## Intervoice

17811 Waterview Parkway  
Dallas, TX 75252  
PH: 972-454-8000  
FAX: 972-454-8707  
[www.intervoice.com](http://www.intervoice.com)

### Booth 604

Intervoice is a world leader in multimedia communications, delivering natural, intuitive ways for people to interact, transact and communicate. Our software and professional services enable innovative voice portal, IP contact center, hosted services and self-service applications that empower millions of people daily. More than 5,000 customers in 80 countries rely on Intervoice.

## Exhibit Hours

Monday, August 18 ..... 5:00 p.m. – 7:00 p.m.  
*Grand Opening Reception*  
Tuesday, August 19 ..... 10:00 a.m. – 5:30 p.m.  
Wednesday, August 20 ..... 10:00 a.m. – 2:00 p.m.

**Inventive Labs**

4955 E. Preserve Ct.  
Greenwood Village, CO 80121  
PH: 866-923-5290  
www.voiceelements.com

**Booth 303**

Inventive Labs is a leading provider of royalty-free telephony application tools and solutions. The company's software products and related services include Voice Elements, a .NET toolkit empowering businesses to rapidly develop and deploy speech solutions. Inventive Labs is headquartered in Greenwood Village, Colo.

**IQ Services**

6601 Lyndale Avenue South  
Suite 330  
Minneapolis, MN 55423  
PH: 612-243-6700  
FAX: 612-869-6200  
www.iq-services.com

**Booth 408**

IQ Services empowers companies to deliver the best possible experience to their customers through flexible managed testing services for contact center and communication solutions. From design to production, IQ Services delivers confidence about solution performance through comprehensive investment protection and test planning; performance and load testing; application feature testing; availability monitoring; and other test services.

**Loquendo**

745 Fifth Avenue, 27th Floor  
New York, NY 10151  
PH: 212-310-9075  
FAX: 212-310-9001  
www.loquendo.com

**Booth 509**

Winner of "Market Leader - Best Speech Engine" at the 2007 Speech Industry Awards, Loquendo is the leading innovator in speech recognition and speech synthesis, providing a complete range of technologies for server, embedded and desktop solutions. Currently available in 23 languages with 57 voices, and constantly growing, Loquendo's best-in-breed

technologies enhance customer satisfaction and greatly reduce costs.

**LumenVox**

3615 Kearny Villa Road  
Suite 202  
San Diego, CA 92123  
PH: 858-707-7700  
FAX: 858-707-7072  
www.lumenvox.com

**Booth 303**

LumenVox provides powerful and affordable speech recognition software together with a committed focus on excellent customer service. This year at SpeechTEK, LumenVox will highlight five partners who either use our award-winning Speech Engine or provide complementary technology: Aculab, Cepstral, Inventive Labs, Prosodie Interactive, and VClarity.

**Message Technologies Inc.**

1995 North Park Place  
Meridian - 5th Floor  
Atlanta, GA 30339  
PH: 770-240-8000  
FAX: 770-240-7474  
www.messagestech.com

**Booth 508**

Message Technologies, Inc. (MTI) helps companies improve business performance using IVR and speech technologies. Since 1982, more than 2,000 companies have counted on us for affordable, best-of-breed IVR and speech application design, development and hosting solutions. MTI also partners with leading speech application developers to provide a reliable hosted infrastructure to support their customer solutions. We have broad capabilities, configurable applications, custom IVR solutions, best of breed platforms and a highly available hosted infrastructure. To learn more about us, please visit our website.

**MicroAutomation**

10550 Linden Lake Plaza, 2nd Floor  
Manassas VA 20109  
PH: 1-800-817-2771  
FAX: 1-703-366-3850  
www.microautomation.com

**Booth # 314**

MicroAutomation is a leading systems integrator offering an extensive range of

call center technology solutions and professional services. MicroAutomation has designed, developed and implemented speech-enhanced solutions worldwide in a variety of industries such as healthcare and government. MicroAutomation's mission is to reduce costs and enhance caller experience through call center automation.

**NeoSpeech**

1290 Oakmead Parkway  
Suite 318  
Sunnyvale, CA 94085  
PH: 408-914-2710  
FAX: 408-914-2710  
www.neospeech.com

**Booth 311**

NeoSpeech offers superior text-to-speech software engines and applications that deliver the most natural-sounding synthesized voice. Our TTS languages include U.S. English, Spanish, Japanese, Mandarin Chinese, and Korean.

**Nexidia**

3565 Piedmont Road  
Building Two, Suite 400  
Atlanta, GA 30305  
PH: 404-495-7220  
FAX: 404-495-7221  
www.nexidia.com

**Booth 803/805**

Nexidia is the market-leading provider of highly scalable and accurate rich media search and speech analytics software. Nexidia's patented phonetic search engine (PSE) enables contact centers to gain valuable business intelligence from their recorded customer-agent interactions by analyzing call traffic, customer experience and business opportunities. For more information, please visit our website.

**NICE Systems**

8 Hapenina Street  
PO Box 690  
Ra'anana, 43107 Israel  
PH: 972 9 775-3777  
FAX: 972 9 743-4282  
www.nice.com

**Booth 614**

NICE Systems (NASDAQ: NICE) is the leading provider of solutions that deliver strategic and operational insights to the enterprises organizations by recording and analyzing telephone calls; website- email- and chat- content; customer transactions; and radio communications. NICE is also the leading provider of Interaction Analytics Business Solution, designed to improve contact center operational efficiency and drive strategic enterprise initiatives.

**Nortel Networks**

4000 Veterans Memorial Highway  
Bohemia, NY 11716  
PH: 631-285-2101  
www.nortel.com/selfservice

**Booth 801**

Nortel's Media Processing Server voice portal products provide speech driven, converged, multimodal and multimedia carrier quality to the enterprise, hosted or carrier customers. MPS is cost-effective, resilient, and secure; open-standard based, using VoIP/SIP and/or TDM to the network. Experience the expertise of our extensive professional services organization and take advantage of SOA, SCE, and VXML/CCXML.

**Nuance**

1 Wayside Rd.  
Burlington, MA 01803  
PH: 781-565-5000  
FAX: 617-565-5001  
www.nuance.com

**Booth 501**

Nuance (NASDAQ: NUAN) is in the business of helping companies better support, communicate with and understand their customers. It does this through a set of interaction solutions including Inbound Messaging, Outbound Messaging, Analytics and Productivity. These solutions help drive an improved customer experience, better business performance, and increased employee productivity.

**Nü Echo, Inc.**

460 Sainte-Catherine W, Suite 424  
Montréal, QC H3B 1A7 Canada  
PH: 514-861-ECHO  
FAX: 514-861-1676  
www.NuEcho.com

**Booth 413**

Nü Echo develops the highest performance speech applications in the industry. Building on more than a decade of experience in speech applications development and a full suite of application development, tuning, and testing tools, Nü Echo is uniquely equipped to deliver applications that simply work better.

**Performance Technology Partners (PTP)**

11246 Gold Express Drive, Suite 101  
Gold River, CA 95670  
PH: 916-791-8263  
FAX: 916-266-8708  
www.performtechnology.com

**Booth 412**

PTP's experienced team adds value to your contact center by providing feature-rich applications and complete system integration. We have expertise in contact center technologies and their integration into your mission critical

**Email Stations**

Email stations will be open in the Exhibit Hall during regular exhibit hours for attendees to check their e-mail.

applications. Our professional services range from project management, VUI design, technical architecture design, development, system integration, to testing, tuning, and maintenance.

### Persay Ltd.

22 Zarhin St.  
P.O. Box 4080  
Ra'anana, 43665 Israel  
PH: (972) 3 767 8666  
+1-866-2398-515  
FAX: (972) 3 767 8661  
www.persay.com

### Booth 321

Persay is a leading provider of advanced biometric speaker verification products with a global network of partners and system integrators. Utilizing the biometric power of voice to verify a speaker's identity, Persay's products are used by leading financial, telecommunications, enterprise and law enforcement organizations.

### Prosodie

855 SW 78th Avenue, Suite 100  
Plantation, FL 33324  
PH: 866-776-7634  
www.ivrinc.com

### Booth 303

Prosodie Interactive has been an industry leading IVR service provider for more than 20 years. Prosodie helps to increase efficiency and customer experience for contact centers by automating applications such as: inbound call routing/steering, branch/dealer locator, service & technical support, outbound marketing dialing with hot transfer, virtual predictive dialing and much more.

### Resolvity, Inc.

1333 Corporate Drive, Suite 200  
Irving, TX 75038  
PH: 972-518-0863  
FAX: 972-518-0959  
www.resolvity.com

### Booth 617

Resolvity's intelligent speech solutions help companies automate a wide variety of customer support calls, ranging from natural language call-routing to more complex and interactive technical and product support applications. The company has expertise in high-tech, telecom, cable MSO, healthcare and other markets. Both hosted and on-premise solutions are available.

### SER Solutions, Inc.

45925 Horseshoe Dr., Suite 150  
Dulles, VA 20166  
PH: 703-948-5500  
FAX: 703-430-7738  
www.ser.com

### Booth 322

SER's speech analytics solution, SERTAINTY, extracts valuable information

from recorded voice conversations to discover customer needs and market trends and analyze calls for script adherence, achievement of KPIs, root cause and fraud detection. Leveraging SERTAINTY with your recording solution helps to reduce call volumes, improve the customer experience, and increase revenue opportunities.



### SpeechCycle

26 Broadway, 11th Floor  
New York, NY 10004  
PH: 646-792-2710  
FAX: 646-792-2722  
www.speechcycle.com

### Booth 513

SpeechCycle Rich Phone Applications deliver the intelligent fusion of natural language dialogs with enterprise back-end systems to create an immersive caller experience. RPAs represent the future of enterprise and mass consumer speech applications, connecting web and other transactional systems with a highly scalable, on-demand environment that enables rapid time-to-value for phone-based initiatives.



### Speech Technology Magazine

2628 Wilhite Court, Building Four  
Suite 100  
Lexington, KY 40403  
PH: 877-993-9797  
FAX: 859-278-7364  
www.speechtechmag.com

### Booth 217

Speech Technology magazine is recognized worldwide as the leading source of news, information, and analysis relating to the speech technology industry. It also provides additional sources of news, information, and analysis through online communities at www.speechtechmag.com and www.speechtek.com as well as with opt-in electronic distribution networks, STM eWeekly and SpeechSource. Subscribe FREE today at www.speechtechmag.com/subscribe.

### Syntellect, Inc.

16610 N Black Canyon Hwy  
Suite 100  
Phoenix, AZ 85053  
PH: 800-788-9733  
FAX: 602-789-2768  
www.syntellect.com

### Booth 510

At Syntellect, we help our customers create, maintain and continuously

improve superior end-to-end service for their customers. With more than 2 decades of pioneering leadership and thousands of solutions deployed globally, Syntellect is a premier provider of enterprise-class contact center solutions for the utilities, financial services, government, high-technology, help desk, consumer products and healthcare industries.

### TuVox

19050 Pruneridge Avenue  
Suite 150  
Cupertino, CA 95014  
PH: 408-625-1700  
FAX: 408-625-1770  
www.tuvox.com

### Booth 409

Since 2000, TuVox has become synonymous with superior caller experience. TuVox customers achieve improved customer retention and increased revenue through innovative combinations of technology and agent service. TuVox leverages customer investments in next-generation technology with a choice of hosted, on-premise, and hybrid deployments, with self-managed and vendor-managed service options available.

### VClarity

17581 Irvine Boulevard  
Suite # 106  
Tustin, CA 92780  
PH: 714-333-9465  
www.vclarity.com

### Booth 303

VClarity provides enterprise voice solutions and a VoiceXML IVR platform for voice-automated self-service applications, where customers can easily manage their applications and develop, test, deploy, and host voice-automated solutions on a highly reliable and flexible voice foundation framework and LumenVox's multi-lingual Automatic Speech Recognition (ASR) and Text To Speech (TTS) provided by Cepstral and Neospeech.

### Verint Witness Actionable Solutions

330 South Service Road  
Melville, NY 11747  
PH: 631-962-9864  
FAX: 631-962-9085  
www.verint.com

### Booth 310

Verint Witness Actionable Solutions offers Impact 360, an analytics-driven workforce optimization solution that brings together quality monitoring, TDM and IP recording, speech and data analytics, workforce management, performance management, elearning, and customer feedback surveys into a unified solution for analyzing customer interactions, improving workforce performance, and optimizing enterprise customer service processes.

### Vicorp

Wexham Springs  
Framewood Road  
Wexham, Buckinghamshire SL3 6PJ  
U.K.  
PH: +44 1753 660 500  
FAX: +44 1753 660 501  
www.vicorp.com

### Booth 306

Vicorp makes it easy for organizations to deliver superior services over the phone while significantly reducing cost. Our experienced team of experts and our smart technology can add value to all organizations looking to improve customer interactions and gain competitive advantage. For more information visit our website.

### Vocal Laboratories, Inc.

8421 Wayzata Blvd  
Suite 260  
Golden Valley, MN 55426  
PH: 952-941-6580  
FAX: 952-941-0819  
www.vocalabs.com

### Booth 507

Vocalabs solves the need for cost-effective and statistically accurate feedback about client care speech recognition, IVR, human agent, and tone applications. Our clients are end-user enterprises, call center consultants, application providers and equipment vendors. We have the unique ability to evaluate a customer contact application at any stage of development, from prototype to live in the field using a large and demographically diverse pool of panelists, or via Express Feedback, a proprietary service that matches live caller feedback with call recordings from the same individuals.



### VoiceObjects

### VoiceObjects, Inc.

1875 South Grant St., Suite 720  
San Mateo, CA 94402  
PH: 650-288-0299  
FAX: 650-525-9414  
www.voiceobjects.com

### Booth 800

VoiceObjects is redefining over-the-phone customer service for global enterprises and carriers through adaptive, cost-effective self-service phone portals. VoiceObjects enables organizations to personalize each caller's experience, to integrate phone self-service into comprehensive customer experience strategies, and to manage the complexity of the world's most sophisticated phone applications. For more information visit our website.



**VoiceVerified, Inc.**

110 Union Square Dr.  
New Hope, PA 18938  
PH: 215-862-7800  
FAX: 215-402-1070  
www.voiceverified.com

**Booth 417**

VoiceVerified is a pioneer in the voice biometric industry, providing verification services using existing telephony infrastructures. VoiceVerified's Point Service Provider (PSP) on-demand hosted highly accurate voice verification service enables call centers and merchants to secure consumer not present (CNP) and other remote transactions, reduce costs, improve the customer experience, promote brand loyalty, and protect privacy. The Hosted Service enables rapid deployment to enhance the speed of consumer adoption.

**Voiyager**

16610 N. Black Canyon Hwy.  
Suite 100  
Phoenix, AZ 85053  
PH: 800-788-9733  
FAX: 602-789-2768  
www.voiyager.com

**Booth 514**

Voiyager is a revolutionary technology that completely redefines how VoiceXML applications are developed, tested and deployed. Voiyager is the

first solution that provides 100% application testing and analysis. No other testing methodologies or products provide enterprises the validation that deployed applications are error-free.

**Voxeo**

189 S. Orange Ave., #2050  
Orlando, FL 32801  
PH: 407-318-1217  
FAX: 407-835-0072  
www.voxeo.com

**Booth 804**

Voxeo makes speech applications easy to build and deploy. The company's common sense approach isn't rocket science: Offer a great platform. Make it exceptionally easy for people to try, buy and use. Provide amazing support. This approach has made Voxeo a leading choice among developers and the answer for companies that believe powerful telephony solutions should be simple and affordable. More than 30,000 developers and enterprise customers — including half of the Fortune 100 — use Voxeo's Prophecy Platform and Hosting to deliver innovative speech-driven IVR applications, outbound notifications, sophisticated call routing and more. Anyone can immediately download the Prophecy Platform or sign up to use Voxeo's hosted developer portal for free at [www.voxeo.com/free](http://www.voxeo.com/free). Voxeo's Prophecy Platform has been

downloaded more than 20,000 times since its launch in 2006. Its standards-based IVR hosting platform is the largest in the world and the only one backed by a 100% uptime guarantee. For more information, call or visit our website.

**Voxify**

1151 Marina Village Parkway  
Alameda, CA 94502  
PH: 510-545-5000  
FAX: 510-545-5055  
www.voxify.com

**Booth 505**

Voxify enables contact centers to offer self-service for customer phone calls. Automated Agents are speech applications that offer the lowest risk to deployment and a rapid return on investment. Built from industry-specific templates and patented conversational models, Automated Agents allow callers to speak naturally resulting in the best customer service.

**Walsh Media, Inc.**

2100 Clearwater Dr., #201  
Oakbrook, IL 60523  
PH: 630-574-8008  
FAX: 630-574-8118  
www.walshmedia.com

**Booth 515**

Walsh Media, Inc., provides professional voice solutions for Contact

Center Applications. IVR, Speech Recognition, PBX, ACD, Message-on-hold and websites are all systems Walsh Media can assist in enhancing the customer experience. Since 1986, we have supported the Fortune 1000 and companies across the continent to improve the way they communicate with their callers.

**west****West Interactive****West Interactive**

11808 Miracle Hills Drive  
Omaha, NE 68154  
PH: 800-841-9000  
FAX: 402-963-1602  
www.westinteractive.com

**Booth 502**

West Interactive is a leading provider of hosted and managed automated customer contact solutions, custom speech applications, automated notifications, customer surveys, network-based call routing and analytic services. We make self-service a positive customer experience that drives customer satisfaction, reduces costs and generates revenue. For more information, please call or visit our website.

## COMPANY WORKSHOPS

Company workshops are open to all attendees and are located in the Manhattan Ballroom.

**TUESDAY, AUGUST 19**

**West Interactive** ♦ 10:00 a.m. – 12:00 p.m.

**Unified Communications — A Strategic Approach to Driving Greater Value**

**Rhonda Gibler**, Senior Vice President,  
West Interactive

Unified communications enables relevant transactions based on end-user need to drive improved revenue and loyalty with maximum efficiency. Delivering on the right blended solution differentiates your brand by providing the greatest value to the end user and great market share for your company. Join West Interactive and learn how a unified communications strategy will improve your brand while reducing costs.



**IBM** ♦ 1:30 p.m. – 3:30 p.m.

**Making It Easy to Get What You Want**

**Steven Cawn**, IBM Speech Sales Leader

This workshop will provide a detailed review of IBM's Free Form Commands speech solutions, which are an extension of IBM's WebSphere Voice Server and Embedded ViaVoice family of speech products. This offering enables customers and solution providers to implement a robust natural language call routing solution. IBM speech experts will discuss application development and the available development tools, implementation considerations, and tuning of Free Form Command applications. Both of IBM's speech families (WebSphere Voice Server and Embedded ViaVoice) will be covered, providing the attendees insight into natural language solutions for almost every speech application in use today.

**WEDNESDAY, AUGUST 20**

**Convergys** ♦ 10:00 a.m. – 12:00 p.m.

**Exhibit Hours****Monday, August 18**

5:00 p.m. – 7:00 p.m.

**Grand Opening Reception**

**Tuesday, August 19**

10:00 a.m. – 5:30 p.m.

**Wednesday, August 20**

10:00 a.m. – 2:00 p.m.



**AD**

**AD**