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Board of Directors for 2014-15

With the elections behind us, a new Board of Directors will begin working together at the end of the Conference on April 2. This year we elected a President-elect and two Directorsat-Large.

Current President Ron Kovac of Ball State University will assume his new position as Immediate Past President. President-elect Mark Reynolds, University of New Mexico, will step into the role of President for 2014-15. The new President-elect is Michele Morrison, British Columbia Institute of Technology, who has most recently served as Chair of the Membership Experience Committee. Riny Ledgerwood, San Diego State, will serve the second year of her two-year term as Secretary/Treasurer.

Adrienne Geralds, from Rutgers, and Simeon Ananou, from Salisbury University, will serve the second year of their first terms as Directors-at-Large. Sharon Moore from Smith College was reelected to a second two-year term. Cathy O'Bryan from Indiana University won a run-off election to serve her first term as Director-at-Large. The Board-appointed Director-at-Large will be announced soon.

Congratulations to all those who were elected, and thanks to all who sought an opportunity to serve. Board service requires commitment and dedication, but also offers an excellent leadership experience. ACUTA's volunteer Board is very active and plays a vital role in the success of the organization.



Reynolds



Morrison



Ledgerwood



Kovac







Moore



Learning Analytics

We hope your year has started out well and that your personal and professional goals are being met! The ICT field is a fascinating one; one that is constantly evolving and changing our goals and objectives. One of the fields that is coming of age is that of learning analytics.

Learning analytics has evolved from the larger field of Big Data, and since we are all in the "teaching and learning" vertical, we need to be concerned and involved with it. Learning analytics involves the ability to collect, measure, analyze, and present data (information) in order to evaluate learning. Learning in this sense means the improvement of academic progress. Learning



Ron Kovac, Ph.D. Ball State University ACUTA President 2013-2014

continued

analytics will lead to early detection of potential problems, which will improve future performance and enhance learning outcomes. One framework is that of Open Learning Analytics, which collects and displays data from three points of view: student, professor, and administrator. The importance of Big Data, a frequent topic in the context of education, is often focused on areas such as gamification, massive open online courses (MOOCs), custom environments on demand, and course capsules. Some expect these initiatives to accelerate learning progress and improve educational processes through the use of Big Data. Data is the key to reaching personalized learning.

Data gives us a sense of "digital intuition." Data analysis converts what might otherwise be simply predications into informed decisions. Ultimately, this information enables the personalization of learning processes, which helps the individual learner. Software programs collect personal data (educational background, commitment efforts, performance, and other elements), and combine them to generate signals. The signals, like traffic lights, provide early warning about performance of programs, courses, and, of course, students. Learning analytic tools are often installed in our learning management system platforms (Blackboard, Moodle, Angel, Desire to learn, etc.) to allow decision makers (professors and administrators) to visualize the network of interactions between students and distinguish behavior patterns. Following up on clues this provides can improve teaching and learning.

For example, SNAPP is one such learning analytic tool that integrates common commercial and open-source virtual learning environments, including the standard version of Moodle. With SNAPP, the University of British Columbia can provide real-time views of student activity in forums and online discussions, allowing decision makers to identify students who are disconnected and, therefore, at risk. Administrators can select the main corridors of information within a class or find high and low performers so that professors can better plan interventions. They can also support the concept of "reflection," where the professor has focused attention on certain groups or individuals when they have mastered course interaction.

The recent introduction of virtual learning environments (online classes) has allowed large volumes of data to be brought to the field of learning analytics. Unlike the traditional classroom, the VLEs of today collect this data automatically and seamlessly. This has led to the emergence of educational data mining (EDM) and, therefore, to the fields of statistical computing and learning analytics. All this is being done to extract value from the datasets and make learners more successful. This relies on well-established data-mining techniques to harvest and prepare the data. Cluster analysis and classification is also brought to bear to allow users to distinguish between novices and experts in learning situations by analyzing course completion and performance. Sequential patterning is then used to identify routes taken by the students as they made their way through course content.

Learning analytics really has its place with MOOCs. Being totally open and massive (no restrictions on the size of the class) and self-managed allows this field to use large amounts of data towards its end. This can provide a framework based on "badge" recognition and can support the ad-hoc opportunistic commitment to individual resources or activities as well as a disciplined commitment to the course as a whole.

MOOCs and on-line learning are great places to exploit learning analytics based on the learning and teaching of detailed data sets that have accumulated over many years. Researchers at the Open University are taking the lead in areas related to social learning analysis, visual analysis, and learning analysis for accessibility and sharing of open and linked data. The challenge now is to garner data stets and knowledge within and outside the institution in order to implement powerful analysis tools that have a positive and measurable impact on the learning environment.

Of course, there is no such thing as a free lunch, and learning analytics comes with some caveats. These caveats are probably all familiar to us as IT professionals but do need to be brought up again to keep them in the forefront of our implementation of learning analytics. These concerns focus on data ownership, data privacy, sharing of data between organizations and stakeholders, and human feedback provided (in self reports) and the effort of corrections that may be provided in the Learning analytics systems. This is all surrounded by the continuing debates over what role learning analytics could, and should, provide in our educational systems and the ethics of data collection—a continually evolving discussion.

So, where does this leave us? We are all familiar with the computing environments of our institutions. We mostly know the concept of using data sets to create and present information for decision making (statistical computing, data analysis, data mining), and we know (albeit slightly) the learning environment or the traditional and flipped classroom. The biggest areas here to come to grips with are: (1) the tools that are being promulgated to provide learning analytics, (2) the integration of these tools within our own LMS environment, and (3) a true understanding of the teaching and learning environment of our universities. This last element will be the most difficult to understand and will take some "bridging" people who can

truly walk the chasm between Information Technology and the learning environment (students and professors). This element is not to be taken lightly as it will be the key element in the success of learning analytics.

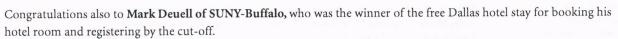
So, where do we go for help in this? ACUTA can be one of your biggest sources of support for understanding, implementing successfully, and excelling in the area of learning analytics. We share information freely (our signature culture) and we provide information in various ways—the *Journal*, *eNews*, seminars, the Annual Conference (coming up shortly in Dallas Texas), and various other venues. Please participate in helping others grow by sharing your knowledge or by learning from others by attending a conference or reading about others experiences. Only a few organizations focus on the deployment of Information Technology in the vertical of higher education and ACUTA is certainly one of the leaders.

I hope you enjoy this edition of the *eNews*, I hope you enjoy the environment you work in, and I hope you make a positive difference to those around you.

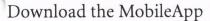
Annual Conference 2014!

Are you coming? If you haven't made plans already, just grab your boots and your hat and come on! It starts Sunday, March 30, and ends Wednesday, April 2, with lots of information, some superlative interaction, and a little relaxation in between.

Congratulations to **Kurt Smith from Michigan Tech** whose name was selected from those who participated in our 2014 ACUTA Environmental Scanning Survey. He won a complimentary registration for the 2014 ACUTA Annual Conference!



Get all the information at www.acuta.org/sc14. You can register when you get to Dallas, but you should book your room at the Hyatt Regency (www.acuta.org/sc14hotel) **today**! (Be sure to mention ACUTA.)



The app enhances your Conference experience before, during, and after the event by providing easy-to-use interactive capabilities such as a dashboard of up-to-the-minute info, maps, social media links, an alphabetical list of exhibitors, photo gallery for photo sharing, and lots more.

Downloading the 2014 Conference app is easy, and you should do it now to begin connecting with the Conference experience before it begins on March 30. It is a native application for smartphones and tablets (iOS and Android) and a hybrid webbased app for Blackberry. There's also a web-based version of the application for all other web browser-enabled phones. For all iOS and Android devices, search Google Play and the App Store for ACUTA 2014.

For all other phone types (including BlackBerry and all other web browser-enabled devices):

- Point your mobile browser to http://m.core-apps.com/acuta2014.
- · From there you will be directed to the proper version of the app for your device. Bookmark this page for future reference.

Be a Moderator at the Annual Conference

We still have openings for a few volunteers to serve as session moderators in Dallas. Moderating a session (or multiple sessions) is a great way to contribute to the success of the Conference and to meet presenters and other attendees. Moderators make brief announcements and introduce the presenter (aided by a script prepared by the ACUTA staff), and keep the session on time.

Review the descriptions of educational sessions, then check out the Moderator Schedule and Signup to see which sessions are still available. To volunteer, send an e-mail <u>today</u> to mwest@acuta.org with the session title, and we'll get you signed up. For more information, contact Michele West, Professional Development Manager, at mwest@acuta.org or (859) 721-1655.

Don't Forget—Discounted Dallas Mavericks Tickets

Come to Dallas on Saturday March 29 so you can watch some great basketball in person as the Dallas Mavericks take on the Sacramento Kings at the American Airlines Center at 7:30 p.m. Secure your *discounted* tickets today by logging onto on.mavs.com/mavs13 (no www or http needed) and selecting the Sacramento Kings game on 3/29. The special offer code is mavs13. If you have any questions or prefer to order tickets by phone, please contact Deanna Rothberg at (214) 658-7120 or by email at Deanna.Rothberg@dallasmavs.com.



Members Celebrate ACUTA Anniversaries

ACUTA is pleased to recognize the following individuals who have represented their institutions or companies in ACUTA for a number of years. We congratulate you, and we appreciate your contribution to ACUTA.

If you expect to see your name on this list and do not, please contact Joanie Proffit at jproffit@acuta.org.

If you are attending this year's Annual Conference in Dallas, please be sure to come to the front of the room at the end of Tuesday's general session to have your picture taken. Anniversary pins are placed in portfolios for those in attendance at the Conference and are mailed to those who cannot attend.

30 Years-

Nancy Girling, College of New Rochelle Dr. Roy J. Simon, Michigan State Univ. Patricia H. Todus, Retired from Northwestern Univ. Kia Malott, Retired: IL Video Educ. Network/SIUC Jo Kaelin, Univ. of Louisville

25 Years -

Michael F. Bonafair, Shippensburg Univ.
Steve Cawley, Univ. of Miami
Margaret A. Fischel, Middlebury College
Lora L. Fleener, Harding Univ.
Doyle N. Friskney, Univ. of Kentucky
Randal J. Hayes, Univ. of Northern Iowa
Ann L. Hogan, Washington Univ. in St. Louis
Richard Huddleston, Rhodes College
Colleen Lommel, College of Saint Benedict
Mark F. McDonald, Central Michigan Univ.
Anthony J. Mordosky, Rowan Univ.
Doris A. Stock, Virginia Tech
Frank Viola, NEC Corporation of America

20 Years _

William L. Aust, Jr., Connecticut State Univ. System Patty Benton, Univ. of Alabama Amy L. Berg, SUNY at Cortland Rebecca Collins Biser, West Virginia Univ. Virginia Brady, Lane Comm. College Adalee Brenner, Kansas State Univ. Janice Bundy, Univ. of California, Los Angeles EllenSue Cameron, Univ. of IL at Urbana-Champaign Beth Chancellor, Univ. of Missouri - Columbia Sara Coapstick, Purdue Univ. Patricia Druid, Merrimack College Kim Erickson, Northern Michigan Univ. James Ezell, Univ. of Arkansas James Feld, California Polytechnic State Univ. Larry Fisk, Univ. of North Dakota Todd D. Foreman, SUNY College at Oneonta John H. Foster, Illinois State Univ. John Frattone, Binghamton Univ. David Gabrovich, Loyola Univ. Chicago Randy Gaines, Idaho State Univ. Debbie Gere, Missouri State Univ. Daniel J. Grim, II, PhD, Univ. of Delaware James Hart, Stony Brook Univ. Robert Hartland, Baylor Univ. John Helms, Auburn Univ. Paul Hernandez, Wright State Univ. Ann Hill, Georgia Southern Univ. Judith Howell, Univ. of Georgia Andrew Hulsey, Univ. of Central Florida Patricia Jacobs, Univ. of Illinois at Chicago

William T. Jensen, Drake Univ.

Mark Kendrick, Longwood Univ. Sean Kinneen, Boston Univ. Frank Kirstein, Canisius College Mary B. Kurtz, Univ. of Toledo Carolyn Long, Missouri Western State Univ. Richard Lucius, Univ. of Saint Thomas Stephen Mahler, Univ. of Louisiana at Lafayette Dan Malick, Bucknell Univ. Daniel Malone, New York Univ. Daryoush Marefat, Univ. of Kentucky David Martinson, Univ. of Arkansas Matthew F. McGlamery, Fort Lewis College Don R. McLaughlin, Univ. of California, San Diego Patricia A. Meinweiser, Univ. of Connecticut Pam Miller, George Mason Univ. Jeffrey A. Mize, Univ. of Alabama at Birmingham James Morrison, Univ. of Massachusetts, Boston Lisa Naanee, Portland State Univ. Steven L. Nickell, Wright State Univ. Edna L. Palmer, Bowie State Univ. Albert Perez, Smith College Jeff Pierce, Iowa State Univ. Barbara Renner, Univ. of Cincinnati Vito Rizzo, New York Univ. Robin Roane, Virginia Commonwealth Univ. Sandra E. Roberts, Framingham State Univ. Kathie J. Ruther, Univ. of Akron Jan Seppa, Northern Michigan Univ. Ric Simmons, Louisiana State Univ / A&M College Ron Smith, Bucks County Comm. College Sharon Stille, Illinois State Univ. Cindy Sundberg, Univ. of Saint Thomas Michael E. Taylor, Temple Univ. James W. Trietsch, Abilene Christian Univ. Jeanette Van Galder, Univ. of Northern Colorado Elizabeth Van Gordon, Indiana Univ. Northwest Daniel Vonder Heide, Loyola Univ. Chicago Terry Wieland, North Dakota State Univ. Clifford D. Wiles, Mansfield Univ. Michael Yonko, Rochester Institute of Technology Lyle Zimmerman, Univ. of Washington

15 Years_

Charles Allen, Ball State Univ.
Ife Azikiwe, Rowan Univ.
Gerald R. Barnes, Campus Televideo
Bruce Barrett, Comm. College of Rhode Island
Kelley Bradder, Simpson College
Tom Branam, Utah Valley Univ.
Mary Bucy, Purdue Univ. North Central Campus
Penny D. Cox, Univ. of Kentucky
Bob Crowley, Hampshire College
Kate Crowley, Univ. of Rochester
Frank De Los Reyes, Univ. of Southern California

Mark S. Deuell, SUNY at Buffalo Mary Dixon, Mississippi College Mike Frazier, Univ. of Mary Hardin-Baylor Susan Gardner, Central Washington Univ. Phillip Garofolini, Comm. College of Rhode Island James Gessner, Bloomsburg Univ. of Pennsylvania Joseph E. Harrington, Boston College Karl Hassler, Univ. of Delaware Christine Hayes, Purdue Univ. No. Central Campus Mark Herro, Texas A&M Univ. William Hurley, Le Moyne College Dave J. Johnson, Edinboro Univ. of Pennsylvania Wayne Jones, Old Dominion Univ. Winfred R. Jones, Grambling State Univ. Debby Katz, Towson Univ. Holly King, Northwestern Univ. Bruce Klein, Rowan Univ. Jim Koutsoumpas, Rose-Hulman Inst. of Technology Ron J. Kovac, Ph.D., Ball State Univ. Dwight Lemky, Mount Royal Univ. Melissa Long, Auburn Univ. Neil Mack, Univ. of Wisconsin - Madison John P. Madey, Univ. of Florida Johanna Madjedi, California Polytechnic State Univ. Mike Marcinkevicz, California State Univ., Fullerton Michael McQuiston, Iowa State Univ. Lesley Montgomery, Georgia Institute of Technology Sharon A. Moore, Smith College Anngie Mosby, Southern Illinois Univ. Edwardsville Janet Niswonger, Indiana Univ.-Purdue Univ. Sharlene Norton, Portland Comm. College Dominique Porter, Cleveland State Univ. Edward Rogers, North Carolina State Univ. Brian Shepherd, Saint Joseph's Univ. Debbie A. Smith, Monroe Comm. College Suheyl Sokmen, Univ. of Washington Anthony D. Stancil, Salisbury Univ. Richard Vande Vrede, Concordia Univ. Wisconsin Douglas Wahl, Univ. of Wisconsin - Stout

10 Years -

Michael Addario, Rensselaer Polytechnic Institute
David Allen, Pacific Lutheran Univ.
Randy Anderson, George Mason Univ.
Derek Andrew, Univ. of Saskatchewan
Chet Arcaba, Oberlin College
Julie Baird, Johns Hopkins Univ.
Robert Barley, Indiana State Univ.
Cheri Beasley, Univ. of North Carolina at Chapel Hill
Chesley Black, Johnson & Wales Univ., Charlotte
Jeff Borton, Schoolcraft College
Kathy Bourgeois, Tulane Univ.

Rusty Waterfield, Old Dominion Univ.

Wayne Williamson, Southeastern Okla. State Univ.

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Garth Braund, Pacific Lutheran Univ. David Bregel, Univ. of Saint Thomas John Burke, Johns Hopkins Univ. Robert Carlberg, Liberty Univ. Robert Corbin, The Ohio State Univ. Chuck Curry, Univ. of No. Carolina at Greensboro Iris Davis, Marymount Univ. Graham Doig, Rensselaer Polytechnic Institute Maria Rosa Drake, Florida International Univ. Janice Flier, Oregon Health & Science Univ. Sandy Fromeyer, Northern Kentucky Univ. Stephen Fugale, Villanova Univ. Rick Garcia, Humboldt State Univ. Tim Garrett, Univ. of California, Los Angeles Vickie Gaskill, Univ. of No. Carolina at Greensboro Scott Genung, Univ. of Oregon Sheryl Gerbracht, Univ. of California, San Diego Kathleen Hughes, Univ. of North Florida Bryon Jackson, California State Univ., Long Beach Jane Kenney, Univ. of Colorado, Boulder Karen Kirkwood, Univ. of Missouri, Saint Louis Alex Konialian, Towson Univ. Bob Konicke, Valparaiso Univ. Jamie Lambert, The Ohio State Univ. Edgar Leatherman, West Virginia Univ. Nancy Lobaugh, Point Park Univ. Bennie Lovette, Univ. of Cincinnati Richard Mazon, Cent. New Mexico Comm. College Brad Morton, College of Saint Elizabeth Michele Narcavage, Univ. of Pennsylvania Ibukun Oyewole, Illinois Institute of Technology Armand Ramirez, Northern Arizona Univ. David L. Rotman, Ph.D, Cedarville Univ. Marty Ruppert, Univ. of Maryland Univ. College Francis Salandanan, Mount St. Mary's College Shannon Sauro, SUNY College at Brockport James Schaefer, DePaul Univ. Kevin G. Sebolt, Franciscan Univ. of Steubenville Annette Short, Capital Univ. Greg Sparks, North Carolina State Univ. John Sundstrom, MiCTA Dana Thompson, Univ. of Southern Maine Sandra Thompson, Univ. of West Florida Janet Turnbull, Univ. of Massachusetts, Amherst Douglas E. Uhl, Waukesha County Technical College Curtis White, Ashland Univ. David E. Wieczorek, Loyola Univ. Chicago David Wood, Univ. of Colorado, Boulder Daniel Zukowski, Bentley Univ.

5 Years

Tom Ambrosi, Washington State Univ. Chris Baines, Univ. of Georgia Mark Bedard, Parlance Corp. David Bertagni, Bryn Mawr College J. Brice Bible, Ohio Univ. Linda Biehl, Illinois Wesleyan Univ. Linda T. Bishop, VALCOM Thomas E. Board, Northwestern Univ. Christian Boniforti, Lynn Univ. Jesse Bottcher, Quinsigamond Comm. College Jerry E. Boyd, Tennessee Technological Univ. Paula Carey, Quinsigamond Comm. College Carlos Casarez, Texas Tech Univ. David Celli, Bloomsburg Univ. of Pennsylvania Craig Cerkowniak, Univ. of North Dakota Richard Chan, West Chester Univ. Randy Clark, Pellissippi State Tech. Comm. College Christopher Clements, Univ. of California, Davis Lee M. Colaw, Amarillo College Don Cole, Andrews Univ. Gregory Crary, Eastern Washington Univ. Michael Jeffery Cunningham, Cedarville Univ. Marlon O. Davis, Brady Corporation Donna Delay, Georgetown Univ. Danah Ditzig, TE Connectivity Jon Dolan, Oregon State Univ. Kenneth Dwyer, Quinsigamond Comm. College Jeremy Eilts, California State Univ., Chico Gene Fields, Univ. of Louisiana, Lafayette Candace Fleming, Columbia Univ. J. Keith Fowlkes, Centre College Val Gardner, Alcatel-Lucent Debbie Garland, Florida Atlantic Univ. James Giardina, SUNY, Buffalo Brenda Gibson, Multnomah Univ. Michael Green, Univ. of California, Berkeley Jimmy Hale, Stanford Univ. Tom Haley, Assumption College Emily Harris, Vassar College Jimmy Holland, Texas Tech Univ. Holly Horner, The Chronicle of Higher Education Steve Huebner, DePaul Univ. Gina Jacobs, ShoreTel, Inc. Kevin Kelly, Whitman College Tom Ku, Hawaii Pacific Univ. Deepa Kurup, Univ. of South Florida

Bruce Lorenzen, Univ. of California, Berkeley Danny Lujan, Cal. State Univ., Dominguez Hills Joshua Luttig, DePaul Univ. Nicholas Maier, RedSky Technologies, Inc. Joseph Mailander, Univ. of Oregon Derek Masseth, Univ. of Arizona James McNabb, Truman State Univ. Jan Melville, St. John's Univ. Sandra Miles, Univ. of Alabama Paula Miner, Univ. of Texas System Parrish Nnambi, Univ. of California, San Diego Matthew Nocifore, Drexel Univ. Michael O'Connor, Kankakee Comm. College Ola Olowolafe, Univ. of California, Riverside Brett Pelphrey, San Diego State Univ. Frank Piscitello, Jr., West Chester Univ. Tony Quigg, Texas A&M Univ., Galveston Mark Redican, Univ. of California, Davis Ronald D. Rio, PWR, LLC Ken Rothhaar, Florida Atlantic Univ. Jose Santiago, Columbia Univ. Steve R. Schafer, Matsch Systems Brian Schmidt, Corban Univ. Lon Schmidt, San Diego State Univ. Robert Shanes, Talkaphone Jack Sharer, Louisville Presbyt. Theo. Seminary Joseph Sincavage, West Chester Univ. David J. Sliman, Univ. of Southern Mississippi Peggy Straub, Bucknell Univ. Kurt Templeman, Sumitomo Electric Lightwave Daniel Thames, Illinois State Univ. Robyn Thompson, Aastra Javier Torner, California State Univ., San Bernardino Daniel Uetrecht, Missouri Univ. of Science and Tech. Dragana Vasic, Univ. of Arizona Ken Voss, Univ. of Missouri - Saint Louis Michael H. Ward, Amarillo College Grant Weed, Princeton Univ. Rita Weighill, Park Univ. Douglas Wells, Northern Kentucky Univ. Cindy Wertz, Univ. of Pittsburgh David Whipp, Southern Oregon Univ. Jim Whitfield, M.Sc., Hi Country Wire & Telephone Tim Whittington, Aastra Andrew Wolf, Linfield College

Christina Yanez, California State Univ., Fullerton

Grow the Network: Tell a Colleague about ACUTA today!

Scott A. Lent, Texas A&M Univ, Texarkana

WebRTC: DTMF and 911

Gary Audin, Delphi, Inc.

Two critical elements of traditional telephony will have to be supported in the new voice-on-the-Web technology.

I was at a conference without my cell phone, and I wanted to access my voice mail through Skype. It did not work. According to the Skype website, it does not support Dual Tone Multiple Frequency (DTMF) signaling. That means I am blocked from accessing any IVR system, my bank, voice mail, credit card companies, and others that have DTMF signaling capabilities. This not terrible, but it is inconvenient.

Some of the services I access by phone are much easier to work with because I can speak to a person. Eventually I will be able to do this with WebRTC, but I have to wait until the contact center vendors deliver the applications at both ends of the connections.

Then I thought about 911. Skype does not support 911 or E911 service; the Skype website states, "Skype Software is not a replacement for your ordinary mobile or fixed line telephone. In particular, apart from in very limited circumstances, the Software does not allow you to make emergency calls to emergency services. You must make alternative communication arrangements to ensure you can make emergency calls if necessary."

These limitations prompted me to consider WebRTC working with IVR systems using DTMF signaling, as well as WebRTC support of 911 and E911.

There is a WebRTC DTMF procedure. This is an absolute must-have function for Auto Attendant navigation and IVR menu selection. If the IVR is designed to accept WebRTC connections, then the DTMF signaling can be translated into data so there is no block to the Auto Attendant and IVR access. WebRTC integration offers developers an API to handle DTMF tones. This assumes that all the WebRTC applications that perform this function are the same or that there very few versions to implement—a standard implementation is very desirable.

When the WebRTC user has to access the PSTN (where DTMF works), then the WebRTC-to-PSTN gateways have to generate the DTMF tones for the IVR access. Again, this should be standardized or limited to a very few discrete implementations. In either case, WebRTC DTMF through a gateway needs to be consistent across virtually all the vendors. See my blog WebRTC-to-Legacy Gateway Announced by Genband.

Another issue is the caller's need to hear the tone feedback from IVR DTMF signaling. I am used to getting this feedback, to confirm my entry. This seems to be an issue. I found a blog on the problem of generating DTMF tones through WebRTC with tone feedback. The blog says there are problems with tone feedback so we may see a text feedback mechanism created instead of tone feedback.

911 and E-911

I looked into the question of 911 support by WebRTC applications. The Public Safety Answer Point (PSAP) is where the 911 call has to be delivered. The PSAPs are designed for the analog PSTN, but they are slowly moving to the next generation on 911 access. See my blogs, NG911: On the Horizon and Impacts of NG911 for further information on NG 911.

I did a Google search on "WebRTC 911" that generated only 4 results. This was not much help. So I contacted Mark Fletcher, Business Development Manager for Avaya's Public Safety Solutions to gain some insight into the WebRTC 911 issue. Mark commented:

Regardless of the endpoint technology someone uses to make a 911 call today, the connection between the Central Office 911 Tandem switch and the PSAP is downgraded to basic analog signaling. The "location data" (and I use that term VERY loosely) is conveyed by MF [multi-frequency] tone generation by the Central Office and sent to the PSAP as in-band audio. These tones are then decoded at the PSAP. It is at this point where they are used to construct a query into the Automatic Location Information (ALI) databases, which then return the location information out of band on a separate path, most often a frame relay-type X.25 connection.

This is why the connection to 911 has never been an issue, even for VoIP telephones. The VoIP problem is one of mobility and nomadic behavior of the user, and the fact that no real "information" is generated from the origination point; it is derived based on the Automatic Number Identification (ANI) assigned by the Central Office. WebRTC will be a technology enabler that finally allows the disassociation of a telephone number and location, but [this won't happen until] the [public] network is ready. Until that point, it is business as usual and something will convert New to Old in the path of the call, probably through a gateway.

Next Generation 911 networks will have the ability to carry real-time data as a packet of information in the SIP header. This will allow the massive amounts of information available from origination networks and devices to be delivered to Public Safety. To prevent overloading an agency with too much information, the location information is delivered in the header while "additional data" such as building plans, environmental sensor data, or even data from an individual's personal health monitor can be presented as a SIP URI that the PSAP will query only if they want, and can receive the available information.

This article was written by Gary Audin and appeared on nojitter.com on September 19, 2013. It is reprinted here with permission from the author.



Riny Ledgerwood Secretary/Treasurer San Diego State Univ. rledgerw@mail.sdsu.edu

Board Report

The Board met via a conference call on February 5, 2014, and approved the following:

- · November 2013 financial report
- · December 2013 and January 2014 strategic plan dashboard
- · Monthly committee minutes and reports
- Membership reports
- Committee nominations
 - 1. Ambassadors Task Force: Carmine Piscopo, Providence College, nomination for another 2-year term as Chair
 - 2. Higher Ed Advisory Panel: Joanne Kossuth, Franklin W. Olin College of Engineering, nomination for 2-year term as Chair
 - 3. Environmental Scanning Committee : Melody Childs, Univ. of Alabama, Huntsville, nomination for another 2-year term as Chair
 - 4. Membership Experience Committee: Jana McDonald, Texas A&M, nomination for her first 2-year term as chair

The 2013 ACUTA Financial Audit was presented to the Board members by an independent auditor.

President Kovac discussed the Board and committee chairs' activities at the 2014 Annual Conference in Dallas.

CEO Corinne Hoch commented that the 2014 Winter Seminar in Phoenix went well. The program content was excellent.

Respectfully Submitted,

Riny Ledgerwood

ACUTA Secretary/Treasurer



It's a Girl!

Rory Olivia Hoch, Corinne's first grandchild, was born March 1, weighing in at a respectable 9 lb., 4 oz. Proud parents are Dan and Alison Hoch, who live "not close enough" to our own CEO, Corinne, and her husband, Greg. So when you see a big smile on Corinne's face in Dallas, you will know one more good reason why it's there!

Info Links

Frequently, vendors, associations, governmental bodies, and others provide white papers and other informational documents which are announced through a variety of media sources. While some admittedly have a certain slant or opinion, others are quite objective; however, they often contain valuable information. Below are links to selected documents.

- ALA Public Library Funding & Technology Access Study: http://www.ala.org/research/plftas/2011_2012
- White House Four Years of Broadband Growth: http://www.whitehouse.gov/sites/default/files/broadband_report_final.pdf
- WEF Global Competitive Report 2013 2014: http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2013-14.pdf
- U.S. ITC Digital Trade in the U.S & Global Economies: http://www.usitc.gov/publications/332/pub4415.pdf
- Princeton Epidemiological Modeling of Online Social Networks: http://arxiv.org/pdf/1401.4208v1.pdf
- Benton The New Network Compact (PSTN-to-IP Transition):
 Executive Summary: http://benton.org/ip-transition/executive-summary
 Full Report: http://benton.org/sites/benton.org/files/the-new-network-compact-ip-transition.pdf
- GWLR Privacy in Europe- Governance Choices/Corp Practices: http://www.gwlr.org/wp-content/uploads/2013/09/Bamberger.pdf
- SSRN Reconciling Personal Information in the U.S. and the EU: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2271442
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