

## **TPACK Newsletter, Issue #9: March 2011**

Special Spring 2011 Conference Issue

Below please find a listing of TPACK-related papers/sessions that will be presented at the [SITE conference in March](#) in Nashville, Tennessee; at the [AERA annual meeting in April](#) in New Orleans, Louisiana; and at the [ISTE conference in June](#) in Philadelphia, Pennsylvania. (That's 71 TPACK-related conference sessions in just 3.5 months!)

### **SITE 2011 TPACK-Related Presentations**

#### **Teacher competencies for 21st century pedagogy**

Joke Voogt, University of Twente, Netherlands  
Tuesday 11:30-12:30 – Hermitage A

#### **Developing a Classroom Observation Tool on Pedagogy and Technology Integration: A Delphi Study**

Douglas Elmendorf, Towson University, USA; Liyan Song, Towson University, USA  
Tuesday 11:30-12:30 – Kingsley

#### **Using the TPACK Framework to Study a Sixth Grade Classroom with High Access to Technology**

Keith Wetzel, Arizona State University, USA  
Tuesday 1:30-2:30 – Edgewood

#### **Explicitly Addressing TPACK in Preservice Teacher Curriculum**

Mia Kim Williams, University of Northern Colorado, USA; Keith Wetzel, Arizona State University, USA; Teresa Foulger, Arizona State University, USA; Todd Kisicki, Arizona State University, USA; Lisa Giacumo, Arizona State University, USA (Roundtable)  
Tuesday 2:45–3:45 – Bellmeade

#### **Using SEM to Move from Theory to Practice with the TPACK Framework**

Brandy Jones, University of Louisville, USA; Jill Adelson, University of Louisville, USA; Leanna Archambault, Arizona State University, USA  
Tuesday 4:30-5:30 – Hermitage B

#### **Instructional Technology Adoption Strategies for College of Education Faculty**

Robert Bowe, National-Louis University, USA  
Tuesday 5:15-6:15 – Hermitage B

By design, this study creates a mechanism whereby faculty could learn from other like-minded faculty about their use of IT.

**Tracking TPACK Development through Conversations about New Literacies**

Jennifer Lubke, University of Tennessee-Knoxville, USA; Jeffrey Beard, University of Tennessee-Knoxville, USA

Wednesday 11:30-12:30 – Hermitage B

**Comparing How Teachers use Technology and Teacher Education Programs Prepare Teachers to use Technology**

Anne Ottenbreit-Leftwich, Indiana University, USA; Thomas Brush, Indiana University, USA

Wednesday 1:30-2:30 – Two Rivers

**Leveraging the Affordances of YouTube: Pedagogical Knowledge and Mental Models of Technology Affordances as Predictors for Pre-Service Teachers' Planning for Technology Integration.**

Karsten Krauskopf, Knowledge Media Research Center, Germany; Carmen Zahn, Knowledge Media Research Center, Germany; Friedrich W. Hesse, Knowledge Media Research Center, Germany

Wednesday 1:30-2:30 – McGavock's A

**Developing a New Technology Infusion Program for Preparing Saudi Preservice Teachers**

Mohammed Alhawiti, Indiana State University, USA

Wednesday 2:45-3:45 – Evergreen

**Preparing Digital Citizens for a Participatory Culture: Critical Digital Literacies in Pre-service Education** (Poster/Demo)

Sarah Lohnes Watulak, Towson University, USA

Wednesday 6:30-8:00 – Bellmeade

**Using eBooks to Develop TPACK: Teacher Candidates Get 'Handy' for Class**

(Poster/Demo)

Candace Figg, Brock University, Canada; Burson Jenny, Brock University, Canada

Wednesday 6:30-8:00 – Bellmeade

**Applying TPACK to Preservice Teacher Technology Integration Courses** (Poster/Demo)

Liangyue Lu, Syracuse University-School of Education, USA; Laurene Johnson, Syracuse University-School of Education, USA; Leigh Tolley, Syracuse University-School of Education, USA; Theresa Gilliard-Cook, Syracuse University-School of Education, USA; Jing Lei, Syracuse University-School of Education, USA

Wednesday 6:30-8:00 – Bellmeade

**Professional Development for Teachers of Chinese: The Interplay of Content**

**Knowledge, Pedagogy, and Technology** (Poster/Demo)

Carolina Bustamante, University of Nebraska-Lincoln, USA; Aleidine Moeller, University of Nebraska-Lincoln, USA

Wednesday 6:30-8:00 – Bellmeade

**Why Are They Not Using It?: Middle Grades Social Studies Teachers' Technology**

**Integration** (NTLI Fellows Symposium)

Caroline C. Sheffield, University of Louisville, USA; Rita Hagevik, University of Tennessee, USA; Patty Stinger-Barnes, University of Tennessee, USA

Thursday 10:15 – 11:15 – Hermitage D

**Teachers' assessment of TPACK: Where are we and what is needed?** (Symposium)

Joke Voogt, University of Twente, Netherlands; Tae Shin, University of Central Missouri, USA; Punya Mishra, University of Michigan, USA; Matt Koehler, University of Michigan, USA; Denise Schmidt, Iowa State University, USA; Evrim Baran, Iowa State University, USA; Ann Thompson, Iowa State University, USA; Wei Wang, Iowa State University, USA; Ghaida Alayyar, University of Twente, Netherlands; Petra Fisser, University of Twente, Netherlands; Douglas Agyei, University of Twente, Netherlands; Bart Ormel, University of Twente, Netherlands; Chantal Velthuis, Edith Stein University of Applied Sciences, Netherlands; Jo Tondeur, University of Ghent, Belgium; David Gibson, Global Challenge, USA

Thursday 10:15-11:15 – Tulip Grove F

**Determining Teachers' TPACK through observations and self-report data**

Douglas Agyei, University of Cape Coast-Ghana, Ghana; Joke Voogt, University of Twente, Netherlands

Thursday 10:15-11:15 and 11:30-12:30 – Tulip Grove F

**Teachers' Rationale as Evidence of TPACK**

Kimberly McCollum, BYU, USA; Jered Borup, BYU, USA; Charles Graham, BYU, USA

Thursday 11:30-12:30 – Edgewood

**TPACK Model Integration: Preparing Preservice Teachers to Teach with Technology**

Prince Bull, North Carolina Central University, USA; Dogoni Cisse, North Carolina Central University, USA

Thursday 11:30-12:30 – Edgewood

**TPACK in the Science Methods Classroom: Focusing on the Space Between**

Richard Hechter, University of Manitoba, Canada; Lynette Phyfe, University of Manitoba, Canada

Thursday 11:30-12:30 – Edgewood

**Using Universal Design for Learning (UDL) and Technology, Pedagogy and Content Knowledge (TPACK) to Design Preservice Teacher Technology Integration and Inservice Teacher Professional Development** (Panel)

Liz Berquist, Towson University, USA; Bill Sadera, Towson University, USA; Liyan Song, Towson University, USA; Yvonne Domings, Center for Applied Special Technology, USA; Lisa Katz, MSDE/HCPS, USA; Linda Macaulay, Towson University, USA  
Thursday 1:30-2:30 – Tulip Grove E

**The Effects of Teacher Content Authoring on TPACK and on Student Achievement in Algebra: Research on Instruction with the TI-Nspire Handheld**

Irina Lyublinskaya, CUNY College of Staten Island, USA; Nelly Tournaki, CUNY College of Staten Island, USA  
Thursday 1:30-2:30 – Two Rivers

**Do teacher education courses influence pre-service teachers' Educational Technology Competencies?— An investigation of pre-service teachers majored in Math Education in China**

Ning Yang, School of Education, Fujian Normal University, China  
Thursday 1:30-2:30 – Two Rivers

**Technology in the Mathematic's Classroom: A Teacher Candidate's Perspective**

Christian Cruze, Ball State University, USA; Kathryn Shafer, Ball State University, USA  
Thursday 1:30-2:30 – Kingsley

**The Influence of Technology Rich Learning Environments: A Classroom-based Observational Study**

Jana Craig Hare, ALTEC/Center for Research on Learning, USA; Marilyn Ault, ALTEC/Center for Research on Learning, USA; Chris Niileksela, ALTEC/Center for Research on Learning, USA  
Thursday 1:30-2:30 – Kingsley

**Developing a Survey from a Taxonomy of Characteristics for TK, TCK, and TPK to Assess Teacher Candidates' Knowledge of Teaching with Technology**

Candace Figg, Brock University, Canada; Kamini Jaipal, Brock University, Canada  
Thursday 1:30-2:30 – Oaklands

**Pre-Service Teacher Learning: Pedagogical Content Knowledge in Video-Based Problem-Solving**

Ugur Kale, West Virginia University, USA; Pamela Whitehouse, West Virginia University, USA  
Thursday 1:30-2:30 – Oaklands

**Pre-Service Teachers' Experience with ICT Integration in Secondary Schools: A Case Study of One New Zealand Context.**

Hasniza Nordin, University of Canterbury, New Zealand; Donna Morrow, University of Canterbury, New Zealand; Niki Davis, University of Canterbury, New Zealand  
Thursday 2:45-3:45 – Kingsley

**Advancing K-8 Teachers' STEM Education for Teaching Interdisciplinary Science and Mathematics Teaching With Technologies**

Margaret Niess, Oregon State University, USA; Emily van Zee, Oregon State University, USA; Henry Gillow-Wiles, Oregon State University, USA; Nancy Staus, Oregon State University, USA  
Thursday 4:00-5:00 – Two Rivers

**Technological Pedagogical Content Knowledge in the Elementary Classroom: A Case Study of One Teacher's Decision Making Process**

Melissa Beeson, University of North Carolina at Greensboro, USA  
Thursday 4:00-5:00 – Two Rivers

**Impact of Research-Based Professional Development: Investigation of Inservice Teacher Learning and Practice in Wiki Integration**

Mesut Duran, University of Michigan-Dearborn, USA; Stein Brunvand, University of Michigan-Dearborn, USA; Justin Ellsworth, Farmington Public Schools, USA; Serkan Sendag, Mehmet Akif Ersoy University, Turkey  
Thursday 4:00-5:00 – Kingsley

**Developing Secondary Mathematics Preservice Teachers' Technological Pedagogical and Content Knowledge: Influencing Positive Growth**

Jeremy Zelkowsky, The University of Alabama, USA  
Thursday 4:00-5:00 – Edgewood

**Poetry in Motion: Using VoiceThread to Prepare 21st Century English Teachers**

Leanna Archambault, Arizona State University, USA; David Lee Carlson, Arizona State University, USA  
Thursday 4:00-5:00 – Edgewood

**Testing a TPACK-Based Technology Integration Observation Instrument**

Mark Hofer, College of William and Mary, USA; Neal Grandgenett, University of Nebraska at Omaha, USA; Judi Harris, College of William and Mary, USA; Kathy Swan, University of Kentucky, USA  
Thursday 4:00-5:00 – Oaklands

**Learning by Design: TPACK in Action**

Liangyue Lu, Syracuse University-School of Education, USA; Laurene Johnson, Syracuse University-School of Education, USA; Leigh Tolley, Syracuse University-School of Education, USA; Theresa Gilliard-Cook, Syracuse University-School of Education, USA; Jing Lei, Syracuse University-School of Education, USA

Thursday 4:00-5:00 – Oaklands

**An Exploration of Initial Certification Candidates' TPACK and Mathematics-based Applications using Touch Device Technology**

Michael McCrory, Victory University, USA

Thursday 4:00-5:00 – McGavock's A

**Integrating Technology in Pre-Service Teacher Education through Peer Assisted Just-in-Time Support** (Roundtable)

Julie Mueller, Wilfrid Laurier University, Canada

Thursday 4:00-5:00 – McGavock's B

**An Alternative Framework for Course Evaluation & Redesign: Technological Pedagogical Content Knowledge of Teachers** (Roundtable)

Matthew Kruger-Ross, North Carolina State University, USA; Lori Holcomb, North Carolina State University, USA; Terrance Wolfe, North Carolina State University, USA

Thursday 4:00-5:00 – McGavock's B

**Pedagogical Strategies for K-12 Teachers' Use of Interactive Whiteboards** (Roundtable)

Ying Wang, Northwestern College, USA; Ronald Ginn, Northwestern College, USA;

Teresa Gonske, Northwestern College, USA

Thursday 4:00-5:00 – McGavock's B

**Instructional Technical and Pedagogical Design: Teaching Future Teachers Educational Technology**

Anne Ottenbreit-Leftwich, Indiana University, Bloomington, USA; Mark Millard, University of Wisconsin, Madison, USA; Peter van Leusen, Indiana University, Bloomington, USA

Thursday 5:15-6:15 – Hermitage A

**Influence of Graduate Coursework on Teachers' Technological, Pedagogical, and Content Knowledge (TPACK) Skill Development: An Exploratory Study**

Crystal Machado, Indiana University of Pennsylvania, USA; DeAnna Laverick, Indiana University of Pennsylvania, USA; Jason Smith, Indiana University of Pennsylvania, USA

Thursday 5:15-6:15 – Two Rivers

### **Refining TPACK Rubric through Online Lesson Plans**

Mete Akcaoglu, Michigan State University, USA; Kristen Kereluik, Michigan State University, USA; Greg Casperson, Michigan State University, USA  
Thursday 5:15-6:15 – Two Rivers

### **Development and Validation of a Survey to Measure TPACK for Preservice Science Educators**

Jason Abbitt, Miami University, USA; Bruce Perry, Miami University, USA; Todd Edwards, Miami University, USA  
Thursday 5:15-6:15 – Two Rivers

### **Video Game Design Principles in Logo Impact Teacher Candidates' Technology Integration**

Aaron Bruewer, Ball State University, USA; Kathryn Shafer, Ball State University, USA  
Thursday 5:15-6:15 – Kingsley

### **Using Technological Pedagogical Content Knowledge as a Framework for Video Case Analysis and Teacher Technology Preparation**

Amy Chase Martin, Towson University, USA; William Sadera, Towson University, USA  
Thursday 5:15-6:15 – Kingsley

### **I Know I Am Supposed To, But I Just Can't: Insights into Technology Integration in Science Classrooms**

Richard Hechter, University of Manitoba, Canada; Laurie Anne Vermette, University of Manitoba, Canada  
Thursday 5:15-6:15 – Edgewood

### **Designing with and for Technological Pedagogical Content Knowledge: The Evolution of GeoThentic**

Aaron Doering, University of Minnesota, USA; Charles Miller, University of MN, USA; Cassie Scharber, University of MN, USA  
Thursday 5:15-6:15 – McGavock's A

### **Three Perspectives on Technological Pedagogical and Content Knowledge: Framing Technology Education using TPACK (Symposium)**

Figg Candace, Brock University, Canada; Jaipal Kamini, Brock University, Canada; Julie Mueller, Wilfred Laurier University, Canada  
Friday 10:15-11:15 and 11:30-12:30– Hermitage D

### **Identifying Affordances and Barriers to Student-centered, Collaborative Learning in the Integration of Interactive Whiteboard Technology**

Cesar Navarrete, University of Texas at Austin, USA  
Friday 11:30-12:30 – Evergreen

**Developing Trans-disciplinary creativity, rethinking the C in TPACK**

Kristen Kereluik, Michigan State University, USA; Punya Mishra, Michigan State University, USA

Friday 2:45-3:45 – Tulip Grove F

**Two Birds, One Stone: A TPACK-Inspired Model to Guide Standards-Based Social Studies Instruction**

John Hineman, Robert Morris University, USA; George Semich, Robert Morris University, USA

Friday 2:45-3:45 – Evergreen



## **AERA 2011 TPACK-Related Conference Papers, Roundtables, and Posters**

### **Between the Notion and the Act: Distinctions Among Secondary Veteran Teachers' Technological Pedagogical Content Knowledge (TPACK) in 1:1 Computing Settings**

(Roundtable)

Lisa G. Hervey (North Carolina State University)

Scheduled Time: Sun, Apr 10 - 10:35am - 12:05pm Building/Room: Sheraton / Grand Ballroom E

In Session Submission: Analyzing and Assessing Teacher Knowledge and Practice

### **Assessing Preservice Teachers' Knowledge Development in the Context of a Technology Integration Course** (Roundtable)

Chrystalla Mouza (University of Delaware), Rachel A. Karchmer (Virginia Commonwealth University), Sule Yilmaz Ozden (University of Delaware), Ratna Nandakumar (University of Delaware)

Scheduled Time: Sun, Apr 10 - 10:35am - 12:05pm Building/Room: Sheraton / Grand Ballroom E

In Session Submission: Analyzing and Assessing Teacher Knowledge and Practice

### **A Comprehensive Approach to Assessing Technological, Pedagogical, And Content Knowledge (TPACK) as an Interdisciplinary Construct** (Roundtable)

David K. Pugalee (University of North Carolina - Charlotte), Margaret L. Niess (Oregon State University)

Scheduled Time: Sun, Apr 10 - 10:35am - 12:05pm Building/Room: Sheraton / Grand Ballroom E

In Session Submission: Analyzing and Assessing Teacher Knowledge and Practice

### **The Development of an Instrument to Measure Preservice Teachers' Technological Pedagogical Content Knowledge** (Roundtable)

Nicholas Lux (Montana State University), Art W. Bangert (Montana State University), David Whittier (Boston University)

Scheduled Time: Sun, Apr 10 - 10:35am - 12:05pm Building/Room: Sheraton / Grand Ballroom E

In Session Submission: Analyzing and Assessing Teacher Knowledge and Practice

**A Critical Review of Technological, Pedagogical, And Content Knowledge (TPACK)**

**Assessments** (Poster)

Tae Seob Shin (Michigan State University), Matthew J. Koehler (Michigan State University), Punya Mishra (Michigan State University)

Scheduled Time: Mon, Apr 11 - 2:15pm - 3:45pm Building/Room: Sheraton / Grand Ballroom C

In Session Submission: Technology as an Agent of Change in Teaching and Learning Poster Session

**Reading Technological Pedagogical Content Knowledge (TPACK) Between the Lines of Theory and Practice in Preservice Teachers** (Poster)

Kristen Marie Kereluik (Michigan State University), Mete Akcaoglu (Michigan State University), Greg Casperson (Michigan State University)

Scheduled Time: Mon, Apr 11 - 12:25pm - 1:55pm Building/Room: Sheraton / Grand Ballroom C

In Session Submission: Topics in Teacher Education: Assessment, Supervision, Curriculum, and Instruction

**Teaching Mathematics With Technology: A Longitudinal Study of Secondary Preservice Teacher Technological Pedagogical Content Knowledge (TPACK) Development**

(Roundtable)

Jeremy Zelkowski (The University of Alabama)

Scheduled Time: Mon, Apr 11 - 8:15am - 9:45am Building/Room: Sheraton / Grand Ballroom E

In Session Submission: SIG/Research in Mathematics Education Roundtable 3: Understanding

**The Effects of Teacher Content Authoring on Technological Pedagogical Content Knowledge (TPACK) and on Student Achievement in Algebra** (Paper)

Irina Lyublinskaya (College of Staten Island - CUNY), Eleni Tournaki (College of Staten Island - CUNY)

Scheduled Time: Mon, Apr 11 - 12:25pm - 1:55pm Building/Room: New Orleans Marriott / Mardi Gras Salon A

In Session Submission: Research on Technology Integration Professional Development

**Beyond Technology, Pedagogy, and Content: Insights Into the Knowledge Bases for Collaborative E-Learning Design** (Roundtable)

Lina Markauskaite (University of Sydney), Agnieszka Bachfischer (University of Sydney), Yael Kali (Technion - Israel Institute of Technology), Peter Michael Goodyear (University of Sydney)

Scheduled Time: Sun, Apr 10 - 12:25pm - 1:55pm Building/Room: Sheraton / Grand Ballroom D

In Session Submission: Technology, Instruction, Cognition, and Learning Roundtable 2: Issues in Technology, Instruction, Cognition, and Learning

**Teachers' Learning While Constructing Technology-Based Instructional Resources**

(Roundtable)

Andrew B. Polly (University of North Carolina - Charlotte)

Scheduled Time: Mon, Apr 11 - 12:25pm - 1:55pm Building/Room: Sheraton / Grand Ballroom E

In Session Submission: SIG Instructional Technology: Technology Evaluation Strategies

**The Acquisition of Musical Technological Pedagogical and Content Knowledge** (Paper)

William I. Bauer (Case Western Reserve University)

Scheduled Time: Sun, Apr 10 - 2:15pm - 3:45pm Building/Room: JW Marriott / Orleans

In Session Submission: Collaborative Learning Environments in Music Education:

Implications for Professional Development

**Instructional Strategies for High-Level Learning Engaging a Community of Learners in an Online Master's Program in Mathematics and Science Education** (Paper)

Margaret L. Niess (Oregon State University), Emily H. Van Zee (Oregon State University), Henry Gillow-Wiles (Oregon State University), Nancy Staus (Oregon State University)

Scheduled Time: Sat, Apr 9 - 12:25pm - 1:55pm Building/Room: New Orleans Marriott / Preservation Hall Studio 4

In Session Submission: Exploring the Possibilities of Online Learning for Future Teachers and Teacher Educators

## **ISTE 2011 TPACK-Related Conference Sessions**

### **Designing and Doing TPACK-Based Professional Development**

[Concurrent Session: Spotlight]

Monday, 6/27/2011, 8:30am–9:30am

Professional Learning : Professional Development

*Judith Harris, College of William & Mary*

New understanding of the nature of teachers' technology integration knowledge (TPACK) suggests ways to design technology-related professional development. Let's think through this shift together.

### **Effective Practices: TPACK, the Arts, and IT**

[Learning Station Session: Poster]

Tuesday, 6/28/2011, 1:00pm–3:00pm

Digital-Age Teaching & Learning : Arts

*Camille Dempsey, Duquesne University with Jordan Mroziak*

What are effective teaching practices related to the arts and instructional technologies?

We will explore digital age skills, TPACK, and arts learning

environments. Recommended by ISTE's SIGMT

### **Integrating TPACK into Preservice Teachers' Learning Experiences**

[Research Paper: Roundtable]

Monday, 6/27/2011, 4:15pm–5:15pm

Professional Learning : Teacher Education (Preservice & Advanced)

*Mia Williams, University of Northern Colorado with Teresa Foulger, Tara Laughlin and TzongYin Lin*

What does TPACK look like in preservice teacher preparation programs? This project explores candidates' knowledge and experiences after participation in a TPACK-focused learning unit.

### **Remix/Reboot: Enhancing and Evolving Digital Music Curriculum through Technology**

[Concurrent Session: Lecture]

Monday, 6/27/2011, 12:45pm–1:45pm

Digital-Age Teaching & Learning : Music

*Jordan Mroziak, Duquesne University with Judith Bowman*

This session engages music education professionals in using current technologies to augment and advance content and pedagogy in the K-18 music classroom. Recommended by ISTE's SIGMT

### **Student-Driven TPACK: Implications for Development and Supervision**

[Learning Station Session: Poster]

Monday, 6/27/2011, 11:00am–1:00pm

Digital-Age Teaching & Learning : English Language Arts

*Rebecca Langrall, Parkway School District*

This session describes student-driven technological, pedagogical, and content knowledge development in secondary English teachers and suggests implications for professional development, curriculum design, supervision and evaluation.

### **There's an App for That! iPads in Elementary Science Classrooms**

[Learning Station Session: Poster]

Wednesday, 6/29/2011, 11:00am–1:00pm

Digital-Age Teaching & Learning : Science

*Margaret Thombs, Roger Williams University with Kelly Donnell, Kristina Soprano and Li-Ling Yang*

Is the iPad just the latest gadget or an engaging classroom tool? Learn about exciting ways to use iPads in your elementary science classroom. (Contains Commercial Content)

### **TPACK and the Missing Paradigm**

[Research Paper: Roundtable]

Monday, 6/27/2011, 4:15pm–5:15pm

Professional Learning : Teacher Education (Preservice & Advanced)

*Nicholas Lux, Montana State University*

By including TCK in the TPACK framework, teacher educators risk falling victim to a pitfall that parallels Shulman's (1986) "missing paradigm."

### **TPACK in Teacher Education: Innovative Models that Work**

[Concurrent Session: Panel]

Monday, 6/27/2011, 12:45pm–1:45pm

Professional Learning : Teacher Education (Preservice & Advanced)

*Ann Cunningham, Wake Forest University with Teresa Foulger, Randy Hansen, Mia Kim Williams, Denise Schmidt, Andrew Smith and Keith Wetzel*

Teacher educators share innovative TPACK integration models and the positive impact they have on teacher candidates, doctoral students, alumni, and K-12 teachers. (SIGTE-sponsored session)