TPACK Newsletter, Issue #3: Late April 2009

Welcome to the third edition of the TPACK Newsletter, now with 362 subscribers (representing a 30% increase in the last two months!), and appearing bimonthly between August and April. If you are not sure what TPACK is, please surf over to www.tpack.org to learn more.

Gratuitous Quote about Technology
"Humanity is acquiring all the right technology for all the wrong reasons."
– Buckminster Fuller

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1. **TPACK's Grandfather**
Dr. Lee Shulman, the legendary educational philosopher who developed the notion of pedagogical content knowledge, has added mention of TPACK to his Web site:
> "Shulman drew heavily on the work of John Dewey who, in his essay "The Child and the Curriculum," wrote extensively about the difference between logical understanding (the knowledge of the "scientist") and psychological understanding (the knowledge necessary for teachers). At the heart of this construct was the notion of a specialized body of knowledge that only teachers possessed, a category of professional knowledge that distinguished teachers from others who might know a subject well, but had no occasion to develop the knowledge entailed in teaching a subject. The concept of pedagogical content knowledge, which Shulman introduced as a hypothesis as president of the American Educational

Research Association in 1985, became popular very quickly. Teacher tests began including items intended to assess teachers' PCK, and researchers began proposing projects to document such knowledge. The idea was particularly useful in the fields of science education and physical education, as well as -- **most recently -- in the domain of technological pedagogical content knowledge**."
http://www.leeshulman.net/domains-pedagogical-content-knowledge.html

2. **Measuring TPACK**
Two robust survey instruments that measure TPACK via respondents' self-reports have been published recently. The instruments are available online for use by other researchers:

Survey of Preservice Teachers' Knowledge of Teaching and Technology
(Schmidt, D., Baran, E., Thompson, A., Koehler, M.J., Shin, T, & Mishra, P., 2009)
Survey .pdf file

Abstract:
"Based in Shulman's idea of Pedagogical Content Knowledge, Technological Pedagogical Content Knowledge (TPACK) has emerged as a useful frame for describing and understanding the goals for technology use in preservice teacher education. This paper addresses the need for a survey instrument designed to assess TPACK for preservice teachers. The paper describes survey development process and results from a pilot study on 124 preservice teachers. Data analysis procedures included Cronbach's alpha statistics on the TPACK knowledge domains and factor analysis for each domain. Results suggest that, with the modification and/or deletion of 18 of the survey items, the survey is a reliable and valid instrument that will help educators design longitudinal studies to assess preservice teachers' development of TPACK. (Keywords: TPACK, instrument development, preservice teachers)"

Archambault, L., & Crippen, K. (2009). Examining TPACK among K-12 online distance educators in the United States *Contemporary Issues in Technology and Teacher Education*, *9*(1). Retrieved from http://www.citejournal.org/vol9/iss1/general/article2.cfm

Abstract:
"With the increasing popularity and accessibility of the Internet and Internet-based technologies, along with the need for a diverse group of students to have alternative means to complete their education, there is a major push for K-12 schools to offer online courses, resulting in a growing number of online teachers. Using the Tailored Design survey methodology (Dillman, 2007), this study examines a national sample of 596 K-12 online teachers and measures their knowledge with respect to three key domains as described by the TPACK framework: technology, pedagogy, content, and the combination of each of these areas. Findings indicate that knowledge ratings are highest among the domains of pedagogy, content, and pedagogical content, indicating that responding online teachers felt very good about their knowledge related to these domains and were less confident when it comes to technology. Correlations among each of the domains within the TPACK framework revealed a small relationship between the

domains of technology and pedagogy, as well as technology and content (.289 and .323, respectively). However, there was a large correlation between pedagogy and content (.690), calling into question the distinctiveness of these domains. This study presents a beginning approach to measuring and defining TPACK among an ever-increasing number of K-12 online teachers."

Are you researching TPACK? Please consider adding a description of your research methods to the TPACK wiki's "Researching TPACK" section.

3. TPACK-in-a-text(book)
Peggy Roblyer and her new co-author, Aaron Doering (of Go North! and GeoThentic fame, and recent SITE 2009 conference keynoter), have used TPACK as one of the primary theoretical bases for the 5th edition of Peggy's bestselling educational technology textbook, *Integrating Educational Technology into Teaching*. Peggy and Aaron suggest that teachers self-assess their TPACK regularly as part of technology integration. Aaron described this approach as part of a presentation at AERA 2009.

4. (Sort of) Recent TPACK Publications
Hot off the press! Punya & Matt's feature article in the May issue of *Learning & Leading with Technology*, "Too Cool for School? No Way! Using the TPACK Framework: You Can Have Your Hot Tools and Teach with Them, Too" is free to download in .pdf format until June 1, 2009.

Abstract:
"This is the age of cool tools. Facebook, iPhone, Flickr, blogs, cloud computing, Smart Boards, YouTube, Google Earth, and GPS are just a few examples of new technologies that bombard people from all directions. As individuals people see a new technology and can appreciate its coolness, but as educators they wonder how these tools can be used for teaching. The fact that a technology is innovative and popular does not make it an educational technology. But these technologies have the potential to fundamentally change the way people think about teaching and learning. Repurposing these cool tools for educational purposes, however, is not simple. If educators are to repurpose tools and integrate them into their teaching, they require a specific kind of knowledge that is called technological pedagogical and content knowledge (TPACK). In this article, the authors provide three examples of technology that can be repurposed for educational ends-- microblogging, visual search engines, and music DJ software. All of these examples were developed by a team of Punya Mishra's graduate students."

Stéphane Lévesque's TPACK-based chapter, "The Impact of Digital Technologies and the Need for Technological Pedagogical Content Knowledge," appeared in Tony Di Petta's book, *The Emperor's New Computer: ICT, Teachers and Teaching* (Sense Publishers, 2008). A free preview (.pdf file) of the book is available online.

Elizabeth Crawford & Misty Kirby's TPACK-based guide to helping students to develop global awareness ("Fostering Students' Global Awareness: Technology Applications in

Social Studies Teaching and Learning") was published in the Journal of Curriculum & Instruction in January 2008. A .pdf version of the article is available online.

Abstract:
"Global education is essential to students' development of knowledge,
skills, and attitudes necessary for future employment and for building successful
relationships in an increasingly interconnected and pluralistic society. Incorporation
of technology in meaningful and authentic learning experiences with students in the
classroom as supported by the Technological Pedagogical Content Knowledge (TPCK)
framework allows teachers to foster students'understandings of the interrelationships of
peoples worldwide, thereby preparing them to participate meaningfully as global citizens.
An overview of web-based organizations that foster global awareness and a description of
professional development opportunities in global education are provided."

5. (Really) **Recent TPACK Presentations**
William Bauer, the Director of Music Education at Case Western Reserve University, wrote to tell us that he presented a session entitled "Technological, Pedagogical, and Content Knowledge, Music, and Assessment" this month at an international symposium on assessment in music education at the University of Florida.

"The music education faculties of the National Taiwan Normal University and the University of Florida School of Music will host a Symposium on Assessment in Music Education in April 2013, on the campus of the National Taiwan Normal University in Taipei, Taiwan. The purpose of the symposium is to bring together music education professionals worldwide to share the latest research, thought, and practice in music education assessment. We invite primary and secondary school music educators, higher education professionals and music education researchers, national, state and local education officials from across the world to join us in Taipei.
Because musical cultures are diverse, music education reflects that diversity in its practice. In educational systems where music achievement and skill are measured, these measurements reflect the musical diversity of the cultures in which musical learning takes place. In many countries, laws for educational accountability and the policies that are created to operationalize these laws into practice impact access to music education and instructional delivery. In the previous three ISAME meetings, participants identified three broad areas that are of interest to music educators across the world."

In addition to the five AERA 2009 TPACK-based presentations that we listed in issue #2 of this newsletter, Chris Dede chaired an 8-participant Division K symposium about "Bridging New Literacies and Technological Pedagogical Content Knowledge (TPCK): Theoretical and Research Perspectives." Joan Hughes was the session's discussant.

"In his century old seminal essay, What Knowledge is of Most Worth?, social theorist Herbert Spencer stated that this question needed to be answered before designing curriculum or instruction. As we make our way into the 21st century, Spencer's provocative question is still front and center but now in the midst of fast-paced technological changes that are prompting new literacies. Perhaps in no other area is this

question more provocative than in teacher education. Koehler & Mishra (2006) assert that in teacher education, the successful teacher is one that can draw from content, pedagogy and technology, forming a technological pedagogical content knowledge (TPCK) framework—and that it is this knowledge that is of most worth. In essence, effective teaching with technology requires TPCK, or an ability to integrate content, pedagogy and technology flexibly during the act of teaching. They argue that teaching with technology is a "wicked problem" (Rittel & Webber, 1973), with solutions being difficult to realize because of "complex interdependencies among a large number of contextually bound variables" (Mishra & Koehler, 2006, p.9). Central to understanding Mishra & Koehler's TPCK framework is the capacity to separate the three components (i.e., content, pedagogy, and technology) while at the same time understanding that they co-exist in a dynamic transactional relationship. For example, when a new technology is introduced it forces teachers to "reconstruct the dynamic equilibrium among all three elements" (p. 18).

In light of the new literacies that are being prompted by emerging technologies, (Leu, Kinzer, Coiro, & Cammack, 2004; Coiro, Knobel, Lankshear, & Leu, 2008) and the growing trends among students demonstrating their increased passion for and reliance on technologies for entertainment and communication (Lenhart & Madden, 2007), the pressure on teachers to successfully integrate technology in the classroom is palpable. The TPCK framework offers insight into how the complexities inherent in teaching and learning with technology can be approached to facilitate teacher growth in this area. The objective of this symposium is to bridge new literacies and the TPCK framework by presenting results from documentary and empirical studies with both preservice and inservice teachers. The first paper examines how features of existing multimodal websites align with emerging perspectives of new literacies and content-area teaching practices appropriate for using technology with students in grades 6-12. The second paper discusses the impact on elementary-school teachers of exposure to science inquiry-based virtual environments to better understand what promotes development of TPCK and what hinders it. The third paper describes how pre-service teachers develop specialized knowledge in the area of new literacies and provides examples of the transactional thinking that is a hallmark of technological pedagogical content knowledge. Through a mixed methods approach, the final paper addresses how to scaffold instruction that assists in-service teachers to conceptualize technology integration for new literacies."

6. Spring 2009 Courses that Use the _TPACK Handbook_ as a Course Text
EDU 583/580: Development and Planning of Curriculum and Assessment I and Technology Integration Module III
University of Maine at Farmington
Dr. Grace Ward
http://edu583spring09.wikispaces.com/

TECS 290: Introduction to Instructional Technology
Fort Hays State University
Dr. Rita Hauck
Syllabus .pdf: www.fhsu.edu/syllabus/tecs/rmhauck/tecs290vcrh-S09.pdf

EDUC 7600: Technology and Learning
Georgia Southwestern State University
Dr. S. Bola Tilghman
http://www.gsw.edu/academics/bulletin/contents/gr.htm#E

7. **TPACK-based Dissertations, 2006-2008**
Cavin, Rose M., Ph.D.
Developing technological pedagogical content knowledge in preservice teachers through microteaching lesson study
The Florida State University, 2007, 197 pages; AAT 3301531

Abstract:
"This research study was conducted to explore the development of technological pedagogical content knowledge (TPCK) in preservice teachers as they participated in microteaching lesson study (MLS). Participants were six preservice teachers enrolled in the required technology course for mathematics and science teacher education at a small rural college. The researcher was also the instructor for the course.
The TPCK framework, modeled by Mishra and Koehler (2006) as three overlapping circles, focuses on the interrelationships between the three components of technology, pedagogy and content, and involves an awareness of the effectiveness of incorporating a technological tool in a content lesson. In microteaching lesson study (M. Fernández, 2005), preservice teachers worked in small groups through repetitive cycles of teaching, reflecting, and modifying a group lesson. Teaching to a group of students enrolled in a college mathematics class provided a situated learning environment for the preservice teachers to experience teaching with technology.
Data were collected qualitatively via audio and video recordings, observations, interviews, and course documents. Data analysis was conducted using the TPCK framework in conjunction with various state and national standards related to the three components of TPCK. Findings indicate that the preservice teachers developed an awareness of the nuances of teaching with technology in a student-centered learning environment, recognizing that traditional "methods" of teaching such as sequencing, pacing and written directions took on special characteristics when technology was involved. Factors seen to have an influence on the preservice teachers' decisions related to the use of a technological tool included participation as students in modeled lessons, comfort level, and the preservice teachers' beliefs related to learning and teaching with technology.
Preservice teachers also expanded their views on mathematical knowledge. Prior to the MLS process, the preservice teachers focused on technology used at a procedural level to "do the math faster," while post MLS data indicated a shift towards a more conceptual view of technology enhanced mathematics. One fringe benefit recognized by the preservice teachers was the experience of working with their peers in fine-tuning a lesson to maximize student learning, gaining practical experience applicable toward future school-based instruction."

Cox, Suzy, Ph.D.
A conceptual analysis of technological pedagogical content knowledge

Brigham Young University, 2008, 197 pages; AAT 3318618

Abstract:
"This dissertation reports the results of a conceptual analysis of the technological pedagogical content knowledge (TPACK) framework, particularly its component constructs of technological content knowledge (TCK), technological pedagogical knowledge (TPK), and TPACK (the central component of the framework listed earlier). First, a technical use analysis reveals how existing research has defined and exemplified the constructs. Next, interviews with leading TPACK researchers further refine the constructs. The dissertation then reports cases that illustrate each of the constructs and the boundaries between them. The conceptual analysis results in an elaborated model of the TPACK framework, focusing on the essential features of each construct to facilitate classification of future examples. The analysis also reveals that TCK, TPK, and TPACK do appear to be distinct constructs. The boundaries among constructs are elaborated through a discussion of the sliding nature of the framework and the nature of the instructional strategies that are enacted."

Forbes, Leighann S., Ed.D.
Internet use in teacher preparation programs: The relationship between pedagogy and practice in the Pennsylvania State System of Higher Education
Duquesne University, 2007, 200 pages; AAT 3286087

"The overall purpose of the study was to examine the relationship between Pennsylvania State System of Higher Education (PASSHE) teacher educators' pedagogical beliefs and their use of telecollaborative Internet activities in practice. The goal of this examination was to address the U.S. Department of Education's Office of Educational Research and Improvement (April 2002) call for collecting data about how digital content is being used and to make recommendations for action. The study collected data, via a web-based survey, about pedagogical beliefs and practices of PASSHE teacher educators. The analysis of descriptive statistics, rankings, Spearman rho correlations, and ANOVA calculations revealed a gap between constructivist pedagogical beliefs and actual instructional practice. Using a typology of constructivist telecollaborative activities, the study pinpointed areas of Internet-specific Pedagogical Knowledge and Technological Knowledge to be developed in PASSHE teacher educators. Recommendations were made for PASSHE programs to collaboratively create telecollaborative inquiry and communication activities, provide professional development in the use of telecollaborative activities, and support integration into teacher preparation programs."

Harrington, Rachel A., Ph.D.
The development of pre-service teachers' technology specific pedagogy
Oregon State University, 2008, 181 pages; AAT 3308570

Abstract:
"The purpose of this study was to document the development of pre-service teachers' Technology Specific Pedagogy as they learned to teach mathematics with technology during their initial licensure program. The study investigated the pre-service teachers'

learning using both a social and a psychological perspective of teacher learning. Two research questions were used to guide the research: 1. What patterns of participation are displayed across learning contexts as pre-service teachers reason pedagogically about teaching mathematics with technology prior to their full-time student teaching? 2. In what ways do the Technology Partnership Project and its features facilitate pre-service mathematics teachers' development of TPCK? The pre-service teachers shared ideas that gave insight into their reasoning about teaching with technology, their overarching conception of teaching mathematics with technology and their knowledge of students' understanding, thinking, and learning in mathematics with technology. Five pre-service teachers were followed during coursework and participation in the Technology Partnership Project field experience. Course participation, course assignments, team planning meetings, teaching observations, teaching artifacts, and interview transcripts were documented and analyzed as evidence of the development of pre-service teachers' Technology Specific Pedagogy. Three pre-service teachers were purposefully selected for in-depth case analysis. The study identified four patterns of participation as the three case participants reasoned about teaching with technology: Playing to Learn, Lesson Design, Student Control, and Equitable Access. The pre-service teachers also shared ideas that indicated their overarching conception of teaching mathematics with technology: Doing to the Technology versus Using the Technology, and Technology as an Extension/Simplifier versus Technology as Enhancer/Differentiator. Lastly, the pre-service teachers shared repeating ideas that indicated their knowledge of students' understandings, thinking, and learning with technology: Visualizing with Technology, Abstraction with Technology, and Motivation. Certain features of the Technology Partnership Project facilitated the development of the pre-service teachers' thinking, including: (1) opportunities to advocate for their own ideas and convince others of the validity of those ideas, (2) opportunities to teach using the ideas of their peers and the in-service teachers and to learn from those ideas, and (3) a way to connect preconceptions about the way students learn with actual examples of student learning."

Hsueh, Su-Ling, Ph.D.
An investigation of the technological, pedagogical and content knowledge framework in successful Chinese language classrooms
Brigham Young University, 2008, 198 pages; AAT 3342724

Abstract:
"This qualitative case study investigates whether technological, pedagogical and content knowledge (TPCK) is balanced and integrated in Chinese language classrooms. Three expert Chinese teachers in technology-enhanced classrooms, as well as their students, were observed and studied. Four and a half months of data were collected in the form of classroom observations, interviews, reflective journals, and document analysis. Four basic findings were derived from the study. First, the TPCK framework reflected an observable instructional process for communication between teachers and students. However, teachers did not knowingly integrate technology, pedagogy and content in technology-enhanced classrooms. Second, content was the focal point during the course preparation process, and teachers did not consciously attempt to negotiate a balance between technology, pedagogy, and content. Third, students preferred human interaction

vi with teachers and individualized learning with teachers' assistance in technology enhanced learning environments. Fourth, educational context and culture did influence the way that teachers taught, selected content, and employed technology."

Rowland, Joseph Damon, Ph.D
[Laptops as practice: A case study examining communities of practice in a ubiquitous computing environment.](#) (.pdf version)
The University of Texas at Austin, 2008, 271 pages; AAT 3342344

Abstract:
"The purpose of this study was to examine a ubiquitous/pervasive computing initiative from a Community of Practice perspective. It sought to understand how faculty fit technology use into the already paramount goals they had for their students learning, and how that technology's role became a part of that essential domain. Furthermore, it sought to determine the extent to which a community of practice emerged around the use of technology as a central practice. Using case study methodology with mixed-methods data collection strategies, this study explored practice among faculty participating in a ubiquitous laptop initiative within a pre-kindergarten through fourth-grade teacher preparation program. This program was part of a college of education in a major research university in the southern United States. Doing so involved an examination of the Vii roles of participants, primarily faculty, in the community or communities to identify the primary domains of concern, and to determine to what extent the use of laptops in the classroom has itself become a practice around which a community has emerged. Findings from this study suggested that instructors were, to varying extents, involved in an emerging community of practice that included the use of technology, specifically laptops, to enhance the development of elementary school teachers. This community of practice was heavily dependent upon infrastructure provided by the administration of the college and the ubiquitous laptop initiative. At the same time, these instructors were less involved with a domain that included teaching teachers to use technology, or *Technological Pedagogical Content Knowledge* (Mishra & Koehler, 2006)."

Whitworth, Shelli A., Ph.D.
[Secondary world history teachers' integration of technology into the classroom: A mixed-method approach](#)
University of South Florida, 2007, 113 pages; AAT 3306902

Abstract:
"In the social studies classroom, using technology, students may gain access to expansive knowledge, broaden their exposure to diverse people and perspectives, and engage in critical thinking activities necessary for citizenship education (Berson, 1996; Berson & Balyta, 2004; Berson & Berson, 2003; Bolick, McGlinn, & Siko, 2005; NCSS, 1994, 2006; Risinger, 1996; Whitworth & Berson, 2003). 21st Century Skills are valuable for students as they examine vast amounts of content relating to historical events, figures, societies, technological growth and examine the relationship of the content to today's global interactions. Research indicates that there remains a call for documentation of exemplary uses beyond that of research and basic presentation tools (Berson & Balyta,

2004; Bolick, McGlinn, & Siko, 2005; Kopkowski, 2006; NCSS, 2006; NEA, 2004; Technology Counts, 2006; U.S. Department of Education, 2004, 2005; Whitworth & Berson, 2003). The continued need for research in the field should address the intersection of content, current effective technology practice, and pedagogy of innovative uses of technology in the classroom while offering a model or steps for use (Berson, 1996; Berson & Balyta, 2004; Berson, Lee, & Stuckart, 2001; Bolick, McGlinn, & Siko, 2005; Braun, 2002; Bull et al., 2007; CUFA Opening Session, 2005; Diem, 2000; Doolittle & Hicks, 2003; McGlinn, 2007; Mishra & Koehler, 2006; NCSS, 2006; Shulman, 1986; Whitworth & Berson, 2003).

This study examined the types of technology being used in secondary World History classes and how they are being integrated. The study utilized a mixed-method approach using a survey instrument, Perceptions of Computers and Technology, designed to measure the types of software and integration of technology use in classrooms. Written responses and follow-up of randomly selected cases served to provide complementary data to elaborate and clarify results from the quantitative portions of the analysis (Hogarty, Lang, & Kromrey, 2003; Johnson & Onwuegbuzie, 2004; Tashakkori & Teddlie, 2003)."

Youmans, Michael J., Ph.D.
When, where, how, and why Berkshire County high school teachers use the Internet for teaching and learning (Massachusetts)
Boston College, 2006, 235 pages; DAI, 67, no. 10A (2006): p. 3705

Abstract:
"This study draws on both quantitative and qualitative data collected from public and private high school teachers in Berkshire County, Massachusetts, to describe their current uses of, beliefs about, and knowledge base surrounding the Internet for teaching and learning. An underlying assumption of this study is that before the outcomes of teachers' uses of the Internet can be addressed, there must first be a clear understanding of how teachers are actually using it for preparation, instruction, and student-directed work. 142 teachers responded to a survey about their most prevalent uses of the Internet, as well as their perceptions about both its value and the obstacles that prevent its effective deployment. Nine participants were chosen from six of the schools to provide richer detail and further examples of major trends discovered in the survey data. The grounded theory, complementary methods study elicited themes that suggest how and why the preponderance of the participants are currently using the Internet to inform and enrich their professional practice and suggest a new domain of teacher knowledge, namely technological pedagogical content knowledge. Key factors influencing teachers' decisions about Internet use include their perceptions about its importance for teaching and learning as well as about the obstacles it poses. The study is significant both in adding to the current knowledge of how some teachers are using the Internet to enhance their craft, offering a methodological lens supporting a multiple measures approach to assessing and understanding teachers' use of technology, and developing a theoretical framework for understanding the particular kind of knowledge Internet-using educators possess. It closes by suggesting a fruitful area for future research and

professional development lies in helping teachers build their technological pedagogical content knowledge."

8. TPACK Wiki Work
Candace Figg & James McInnis from Brock University; and Charles Graham from Brigham Young University have stepped up as editors of the TPACK wiki. Candace and James will be working on the Reference Library /Key Articles page and Charles will be working on the Researching TPCK page(s). Inspired by their energy and initiative, Judi Harris volunteered to work on the Developing TPACK page. We would like to thank them, and if there are others interested in helping out, please drop an email to mkoehler@msu.edu or punya@msu.edu (Matt or Punya).

9. First-ever TPACK Video Mashup
On April 8th, Punya was a guest host on Nashworld, the (awesome) blog of Sean Nash, a TPACK-totin' biology/marine biology teacher at Benton High School in Saint Joseph, Missouri. Punya's entry included a great video mashup-with-a-message. (And yes, it's posted on YouTube, but there are no comments added – yet. Hint, hint, cough, cough.)

10. Display your TPACK proudly!
Yes, it's true. There's more TPACK merchandise than your credit limit can handle at Café Press. Shirts, hats, bags, stickers, cards, calendars, mugs, totes, teddy bears…and even "intimate apparel." All proudly displaying a cool new "ambigrammic" TPACK logo (which you have to see in a mirror to appreciate the full effect!):

Punya & Matt would like to add that neither of them make any money on these sales. They are priced at what Cafe Press charges.

11. Learning and Doing More with TPACK
Interested in learning more about TPACK or getting more involved in the TPACK community? Here are a few ideas:

a.   Visit and contribute to the TPACK wiki at: http://tpack.org /
b.   Join the TPACK SIG at: http://site.aace.org/sigs/tpack-sig.htm
c.   Join and contribute to the TPACK Google group at: http://groups.google.com/group/tpack/

d.   Review and provide feedback on the TPACK Learning Activity Types at:
        http://activitytypes.wmwikis.net/

Feel free to forward this newsletter to anyone who might be interested in its contents. Even better, have them subscribe to the TPACK newsletter by sending a blank email to sympa@lists.wm.edu , with the following text in the subject line:
subscribe tpack.news FirstName LastName
(of course, substituting their own first and last names for 'FirstName' and 'LastName' -- unless their name happens to be FirstName LastName, in which case they can just leave it as is).

If you have a news item that you would like to contribute to the newsletter, please send it to: tpack.news.editors@wm.edu

If you are interested in volunteering to help run the newsletter (we need help!), send email to: tpack.news.editors@wm.edu

Standard End-Matter
If you have questions, suggestions, or comments about the newsletter, please send those to tpack.news.editors@wm.edu .

If you are subscribed to the tpack.news email list, and -- even after reviewing this impressive publication -- you prefer not to continue to receive the fruits of our labors, please send a blank email message to sympa@lists.wm.edu , with the following text in the subject line: unsubscribe tpack.news

Have a great summer, everyone! We'll be back in late August with issue #4 of the TPACK Newsletter.

- Judi, Matt, Mario, and Punya

Judi Harris,	Chair, College of William & Mary
Matt Koehler,	Vice-Chair, Michigan State University
Mario Kelly ,	Futon, Hunter College
Punya Mishra,	Recliner, Michigan State University