

Carnegie Mellon University

*dialogue*  
across disciplines

*showcase*  
educational research

*disseminate*  
innovative teaching

TEACHING & LEARNING  
SUMMIT  
2016

Friday, October 14, 2016

1:00-5:00pm, Cohon University Center

[www.cmu.edu/teaching/summit](http://www.cmu.edu/teaching/summit)

**Eberly Center**

Teaching Excellence & Educational Innovation



**This event is brought to you by:**

Eberly Center for Teaching Excellence & Educational Innovation  
Office of the Provost, Farnam Jahanian  
Office of the Vice Provost for Education, Amy Burkert  
The Simon Initiative

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Keith Cook, Biomedical Engineering, CIT  
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Stacie Rohrbach, School of Design, CFA  
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Chad Hershock, Director of Faculty & Graduate Student Programs  
Judy Brooks, Director of Educational Technology & Design  
Katie Walsh, Teaching Consultant  
Emily Weiss, Teaching Consultant  
Heather Dwyer, Former Teaching Consultant  
Kate Hamilton, Post Doctoral Teaching Consultant  
Megan Sanders, Post Doctoral Teaching Consultant & Research Associate  
Michelle Pierson, Business Administrator

# agenda

CMU faculty and graduate students are great innovators – not only in their scholarly and creative works, but also in their teaching. The Teaching & Learning Summit celebrates and showcases the exciting ideas and evidence-based approaches that our colleagues are applying here at CMU and beyond.

**1:00pm Welcoming Remarks**

**1:10pm Keynote:**



**Dr. Daniel T. Willingham** Cognitive Psychologist  
**Critical Thinking: *Why Is It So Hard to Teach?***  
Translating research into practical strategies

**2:10pm Break**

**2:20pm Roundtable Discussions**

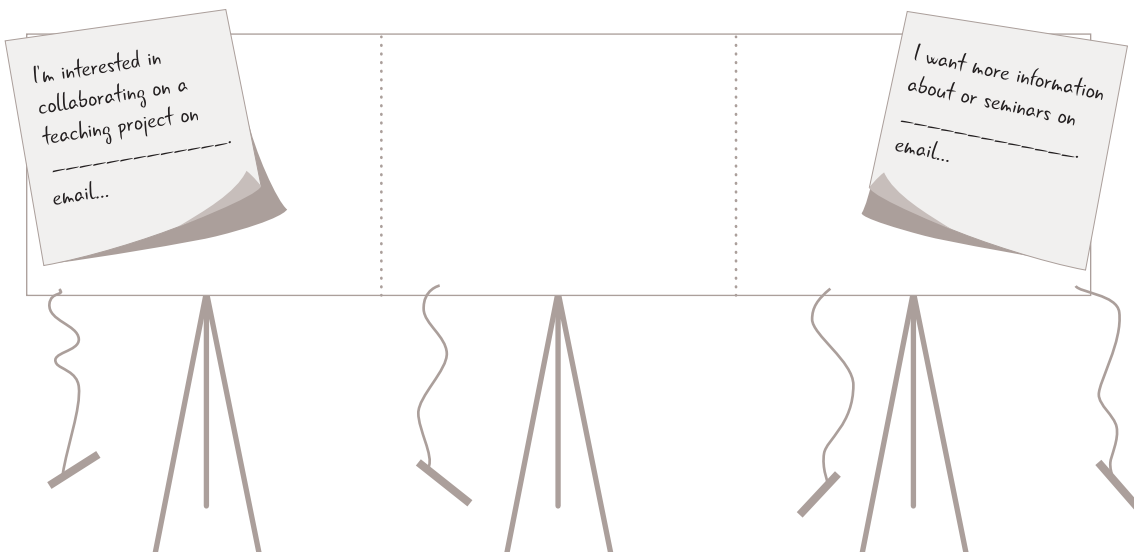
**3:05pm Break**

**3:15pm Quickfire Interactive Talks**

**4:15pm Poster Session & Networking Wall, with Appetizer buffet**

**5:00pm Adjourn**

A “networking wall” provides an interactive space for potential collaborators to connect with one another, respond to written prompts about teaching, seek collaborators, and post contact information.



# roundtables

## 2:20pm Rangos Ballroom

Registered participant: find your table assignment (topic and table number) on the back of your nametag

Teaching  
and grading  
creativity and  
innovation

Teaching  
critical thinking

Teaching  
communication  
skills  
within and across  
disciplines

Designing  
and managing  
group work and  
team projects

Implementing  
active learning or  
flipped classroom  
strategies

Leveraging  
technology-  
enhanced learning  
in your teaching

Teaching via  
making in  
studio or  
maker spaces

Incorporating  
gamification  
strategies into  
course design

Teaching  
interdisciplinary  
courses

Teaching and  
reaching  
heterogeneous  
students

Motivating  
students

TEACHING & LEARNING  
SUMMIT  
2016

# quickfire talks

**3:15pm (in designated rooms)**

Delivered by faculty and graduate students to rapidly showcase innovative and effective teaching

## McKenna/Peter/Wright (second floor)

<b>Leadership Development through Student Choice and Reflection</b>	<b>Blogging as Practice in Applied Philosophy</b>	<b>Multidimensional Student Growth in a First Year Program</b>	<b>Tackling Diverse Student Backgrounds Before, During and After Class</b>	<b>Effective Strategies for Teaching Group Work</b>
Molly McCarter CFA, Drama	Aidan Kestigian DC, Philosophy	Maggie Braun MCS, Biology	Lauren Cook CIT, CEE	Jeria Quesenberry DC, Info Systems Joe Mertz HNZ
lifelong learning, assessment design	collaborative learning, discussion facilitation	first-year seminars, metacognition	scaffolding, just-in-time teaching	service learning, teaching at scale

## Connan (first floor)

<b>Teaching a Broad Spectrum: The Art and Science of Color</b>	<b>Soft Fabrication: Skills-based Microcourse in IDEATe</b>	<b>Making Blended Learning Work: Lessons from CMU's Online Hybrid MBA</b>	<b>Wiki what? Using a wiki to enhance learning and transfer</b>	<b>Is my teaching intervention working? How can I tell?</b>
Clayton Merrell CFA, Art Catalina Achim MCS, Chemistry	Jen Liu CFA, Architecture	Bob Monroe TPR	Ryan Roderick Pierce Williams Susan Tanner DC, English	Marsha Lovett DC, Psychology
team teaching, inter-disciplinary course design	condensed course design	program development, online course design	collaborative learning, team teaching	data-informed teaching, assessing student learning

## Danforth Lounge (second floor)

<b>If you can't write it down, you don't understand it</b>	<b>Blogs as Tools to Engage Students During Courses and Beyond</b>	<b>Community Engagement: Promising Practices in Global and Local Contexts</b>	<b>Engaging Students in Mathematics Through Active Learning</b>	<b>The IDEATE Gallery</b>
Bryan Webler CIT, MSE	Eleni Katrini CFA, Architecture	Therese Tardio DC, Modern Languages	Clive Newstead MCS, Math	Daragh Byrne CFA, Arch/IDEATE
teaching communication skills, assessment design	public blogging	service learning, mentoring student teams	think-pair-share, peer review, recitations	online peer critique, flipped studio classroom

# poster session

**4:15pm Rangos Ballroom**

Showcasing exciting CMU projects and evidence-based approaches.

Berardone, Jim  
Haqqi, Saman  
CIT, EPP

**Educating Engineers to be Innovation Marketers: Applying Learner-Centric Learning and Teaching Principles**

Brasier, Daniel  
Rule, Gordon  
MCS, Biological Sciences  
Hershock, Chad  
Lovett, Marsha  
Eberly Center

**Pairing animations with practice/ feedback improves learning in an online biology module**

Carver, Sharon  
DC, Psychology / Children's School  
**CMU's Children's School: A Learning Laboratory Modeling and Refining Research-Based Practices**

D'Antonio, Jason  
MCS, Biological Sciences  
**Flipping A Science Class Leads To Enhanced Learning, Reading and Writing.**

Dear, Tony  
Choset, Howie  
SCS, Robotics Institute  
**Flipping Undergraduate Robotics and Creating Interactive Online Content**

Delahay, Anita  
DC, Psychology  
**Assessing Prior Knowledge to Support Personalized Instruction**

Dwyer, Heather; Kojtek, Lynn; Sanders, Megan; Hershock, Chad; Lovett, Marsha  
Eberly Center  
**Can you train large numbers of undergrads online to be effective TAs?**

Eichmanns Maier, Gabriele  
DC, Modern Languages  
Torello, Francesca  
CFA, School of Architecture  
**Digital Vienna 1900**

Gatterbauer, Wolfgang  
Ravi, R  
TPR

**Inquizitiv: Bootstrapping Virtuous Learning Cycles**

Gerritsen, Dave  
Zimmerman, John  
Ogan, Amy  
SCS, HCII

**Supporting class discussion through live notification and personal pedagogical training**

Glavan, Mary  
Harrell, Jessica  
DC, English  
**Using Google Drive to Support Collaboration and Process Writing**

Harrell, Jessica  
DC, English  
**Rethinking Assignment Practices in Humanities Courses**

Harrell, Mara  
DC, Philosophy  
**Students Learn Argument Diagramming Better with More Practice**

Inventado, Paul Salvador  
Scupelli, Peter  
CFA, School of Design  
**A Data-Driven Design Pattern Methodology to Facilitate Effective Pedagogical Practice in Online Learning Systems**

Jakubiak, Brittany  
DC, Psychology  
**The five-sentence summary: A pre-writing exercise to scaffold empirical writing**

Jones, Chris  
Youngs, Bonnie  
DC, Modern Languages  
**French Online**

Katrini, Eleni  
CFA, School of Architecture  
**Teaching a Developing Multi-disciplinary Field of Study**

Kaynar, Dilsun  
SCS, Computer Science Department  
Bier, Norman  
OLI and Core Collaborations  
Cortina, Tom  
SCS, Computer Science Department  
**Teaching Principles of Computing with OLI**

Keating-Miller, Jennifer  
DC, English  
Noubarkhsh, Illah  
SCS, Robotics Institute  
Carson, John  
CFA, School of Art  
**Art, Conflict and Technology in the North of Ireland**

Liu, Gang  
DC, Modern Languages  
**New Visions of China through Documentary Films and Cross-Cultural Peer Learning**

Lopez, Antonio-Javier  
MCS, Biological Sciences  
Corbett, Albert  
MacLaren, Benjamin  
SCS, HCII  
**Using Clickers to Engage a Group in Collaborative Problem Solving and to Inform Cognitive Tutor Development**

Neuwirth, Chris  
DC, English/HCII  
**An OLI-based Tutor for Teaching Prose Style**

Olsen, Jennifer  
Aleven, Vincent  
SCS, HCII  
Rummel, Nikol  
**Combining Collaborative and Individual Learning with an Intelligent Tutoring System**

Owens, Jessica  
Shai, Nitsan  
Academic Development  
**CMUBalance.org**

Owens, Jessica  
Academic Development  
**Carnegie Mellon's Undergraduate  
Collaborative Learning Programs**

Reineke, Juliann  
DC, English  
**Strategies for Graduate Writing Success**

Rivers, Kelly  
Koedinger, Ken  
SCS, Human-Computer Interaction  
**ITAP: The Intelligent Teaching Assistant for  
Programming**

Rohrbach, Stacie  
CFA, School of Design  
Ishizaki, Suguru  
Werner, Necia  
DC, English  
**Understanding Students' Intrinsic Motiva-  
tions for Engaging with TEL Tools that Teach  
Visual Communication Skills**

Sakr, Majd  
Kalvani, Mrigesh  
Dashti, Cameron  
SCS, Computer Science  
**Managing Resource Cost for a Large Online  
Project-Based Course**

Sakr, Majd, SCS, CSD  
Dwyer, Heather, Eberly Center  
Lovett, Marsha, DC, Psychology  
**An Online Course on Academic Integrity for  
Distance Learning**

Scupelli, Peter  
CFA, School of Design  
Brooks, Judy  
Eberly Center  
**Dexign Futures: a Flipped, Open Learning  
Initiative Course**

Shanmugaraj, Nisha  
Wodzak, Sophie  
DC, English/Vice Provost for Education  
**The Paraphrasing Spectrum: Using Interac-  
tive Videos to Teach Rhetorically-based  
Source Use**

Shashinkant, Tanvi  
MCS, Biological Sciences  
Emily, Charleson  
MCS, Chemistry  
Weinberg, Zara  
Brasier, DJ  
MCS, Biological Sciences  
Hershock, Chad  
Eberly Center  
**Small groups dramatically improve analysis  
and critical evaluation of biology research**

Sieg, Wilfried  
DC, Philosophy  
Sakr, Majd  
SCS, Computer Science  
Bier, Norman, OLI  
**Strategically Segmented Problem Solving**

Skibba, Candace  
DC, Modern Languages  
**Blended Learning in the Foreign Language  
and Literature Classroom: Technology to  
Build the Bridge between Language and  
Content?**

Sooriamurthi, Raja  
DC, Information Systems  
**Puzzle-based Learning: Introducing Critical  
Thinking and Problem Solving**

Subramanian, Shoba  
MCS, Biological Sciences  
**A Multi-Pronged Approach to Enhance  
Learning Outcomes In a Diverse Classroom**

Sutner, Klaus  
SCS, CSD  
**Discrete Math Primer**

Vuocolo, Leonard  
MCS, Chemistry  
Weiss, Emily Daniels  
Eberly Center  
**Impact of Exam Wrappers on Improving  
First-Year Student Learning and Exam  
Performance in Introductory Chemistry**

Walker, Devon  
CIT, Chemical Engineering  
**Hands-on learning in the classroom  
with Org-mode**

Wallach, Stephanie  
Provost's Office, URO  
**SPEAK UP! Cross-Disciplinary Communication  
Skills Seminar for Summer Undergraduate  
Researchers**

Walsh, Matthew  
DC, Psychology  
**Successive re-learning: The next frontier in  
educationally relevant psychology research**

Walsh, Katie, Eberly Center  
Lovett, Marsha, DC, Psychology  
Hershock, Chad, Eberly Center  
Hamilton, Kate, Eberly Center  
Sanders, Megan, Eberly Center  
**Comparing Full-Semester and  
Condensed Courses**

Webler, Bryan  
CIT, Materials Science & Engineering  
Weiss, Emily Daniels  
Eberly Center  
**An Instructional Approach to Improve  
Student Writing**

Weiss, Emily Daniels, Eberly Center  
Braun, Maggie, MCS  
Hannon, John, Student Affairs  
**EUREKA and the MCS Metacurriculum**

Wetzel, Danielle  
Werner, Necia  
Ishizaki, Suguru  
DC, English  
**Improving Writing Instruction**

Wu, Sue-mei  
DC, Modern Languages  
**Technology-enhanced learning for Chinese  
language, theater performance and culture**

Zapanta, Conrad  
CIT, Biomedical Engineering  
Chung, Wayne  
CFA, Design  
Dickert, Joanna  
Undergraduate  
Research Office  
**Cross-Disciplinary Design Teams for  
Biomedical Engineering Design**

*Upcoming this semester...*



## HOW MUCH IS TOO MUCH?

Roundtable Discussion  
Tues, Nov 1  
Noon-1:15pm  
Rangos 3, CUC

How do we maintain our commitment to educational rigor while promoting a culture that values both academic success and holistic well-being?

Register to attend:

<http://www.cmu.edu/teaching/facultyworkshops/>

## CELEBRATION of EDUCATION

## teaching innovation award

**originality**  
of the teaching strategy

**impact**  
on student learning

**potential**  
for widespread adoption

Teaching Innovation Award

Nomination Deadline - November 7, 2016

Submit a nomination for the 2017 Teaching Innovation Award at:

[http://www.cmu.edu/celebration-of-education/  
teaching-innovation/teachinginnovationnom.html](http://www.cmu.edu/celebration-of-education/teaching-innovation/teachinginnovationnom.html)

## Eberly Center

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